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REGULATIONS GOVERNING ADMISSION TO THE GRADE OF SURFMAN IN THE LIFE-SAVING SERVICE.

Hon. S. I. Kimball, general superintendent, may well be termed the father of the life-saving service, under, of course, the liberal auspices of the government. Mr. Kimball has stood by the service from its inception and has been the chief means of bringing it up from a very small beginning to one of the most important branches of the Treasury Department, and finally, as we now learn, the entire service is to be placed under the civil service rules thus effectually putting a stop over any political or other influences which might have later crept into the service, and in fact, which has taken a steady positive effort to eradicate or prevent in the past.

The following regulations governing admission to the grade of surfman in the life-saving service have been adopted by the commission:

No applicant shall be appointed to the grade of surfman in the life-saving service except upon examination and certification by the United States Civil Service Commission.

Applications for examination shall be made upon the blank forms of application furnished by the commission, which may be obtained from the superintendent of any life-saving district or the keeper of any life-saving station.

The names of persons who are found eligible upon examination shall be entered upon the register of eligibles but twice a year—at the beginning of June and the beginning of December—unless because of a lack of eligibles for any section the demands of the service require a special examination to establish an eligible register.

An applicant must be a citizen of the United States; not under 18 nor over 45 years of age; not less than 5 feet 6 inches in height; not less than 132 nor more than 190 pounds in weight; must reside not more than 5 miles inland from the ocean, bay, or sound shore, or the shore of the great lakes (except applicants for the Louisville station at the falls of the Ohio river); and must be able to read and write the English language.

No person shall be examined who has not had at least three years' experience as a surfman, sailor, or boatman, but if there are no eligibles in and for the section where the vacancy exists, and certification cannot be made from any other section because there are insufficient eligibles to make a certification for the existing vacancy, applicants having had less than three years' experience or no experience at all, may be examined.

A competitor who furnishes a medical certificate showing him to be physically qualified in every respect for service as a surfman shall be marked 100 for physical condition. A proportionate deduction shall be made from 100 for any physical defects noted by the medical officer, but which in his opinion do not disqualify the competitor for the service. A competitor who has had experience as a surfman and who has also had separate experience as a sailor or boatman, or in all of these occupations, shall be given a mark for experience calculated upon the experience in each occupation, but the aggregate mark for experience in any one or more of these occupations shall not exceed 100.

The period of eligibility shall be one year from the date of entering the name on the register of eligibles, but an eligible who shall reach the maximum age limit during the period of eligibility shall not be certified for appointment.

Whenever a person is selected for employment as a

surfman in the life-saving service he shall be required to enter into a written agreement to serve as such, according to the terms and under the conditions therein stipulated.

Whenever a keeper has made a selection from a certification, he shall immediately forward to the general superintendent of the life-saving service, for transmission to the commission, a statement, made under oath, if practicable, giving the name of the person selected and stating that the selection was made with reference to fitness only and without reference to political or party affiliations.

The general superintendent of the life-saving service, the superintendent and assistant superintendent of each life-saving district, and the keeper of each life-saving sta-



S. I. KIMBALL, GENERAL SUPERINTENDENT U. S. LIFE-SAVING SERVICE.

tion shall act as representatives of the commission in the discharge of the duties required of them by these regulations.

STURGEON BAY NAUTICAL SCHOOL.

The city of Sturgeon Bay, Wis., is probably the only port north of Chicago that can lay claim to a fully equipped nautical school for the education of lakefaring men. The school is under the supervision of C. E. Long, who is the originator of the idea and editor of the marine department of the best local paper as well as agent for the Green Bay region of the United States hydrographic office. The school at present has an attendance of about fifteen students, composed of captains and mates.

NATIONAL OFFICERS M. E. B. A.

The National Association of Marine Engineers at its annual session in Washington last week, elected the following officers for the ensuing year: President, George Uhler, of Philadelphia; vice president, John J. Searcy, of San Francisco; secretary, Thomas F. Dowd, of Chicago; treasurer, John J. A. Williamson, of New Orleans.

TO FLOG SAILORS.

Senators Frye and Hale, who are responsible for the senate substitute for house bill No. 2663, which restores flogging in the merchant marine, are being severely condemned by members of the Western Seamen's Friend Society and various branches. At a meeting of the Cleveland trustees of the organization, who are prominent business men, the following resolutions were unanimously adopted:

"Resolved, That the W. S. F. S. with its numerous branches along the chain of lakes from Buffalo to Duluth, and on the rivers from Pittsburg to New Orleans including a population of 300,000 sailors and river men, protest against the senate substitute for house bill No. 2663, which restores flogging in our merchant marine, changing entirely the nature of the bill now before congress, which was intended to alleviate some of the worst features of poor Jack's life.

"Resolved, That we are astonished that such men as Senators Frye and Hale should be authors of so barbarous a clause.

"Resolved, That our general superintendent correspond with the American Seamen's Friend Society and other independent and denominational seamen's societies throughout the country, urging to call meetings and protest against the bill."

The resolutions then endorse the Plimsoll act, which it is said has worked so satisfactory to the British sailor and shipowner, as a substitute.

A copy of the resolution has been forwarded to Speaker Reed and Congressman Burton.

AIDS TO NAVIGATION.

The grand lodge of the Lake Shipmasters' Association in session at Washington last week decided to petition the lighthouse board for a change in the character of the port light on the north point at Milwaukee by the substitution of a red flash for the present white light. A resolution was adopted requesting the lighthouse board to have gas buoys placed at such additional points on the great lakes as the Lake Carriers' Association committee may recommend, and urging the establishment of at least twenty new buoys. A permanent lighthouse was recommended for the entrance of the new harbor channel at Toledo, and protest made against a bridge across Niagara river at Grand Island.

DETROIT COMMERCE.

According to a statistical report of the collector of customs, Detroit, the aggregate exportation of goods from that port in 1896 was \$11,228,120. Of this \$6,926,654 went to Canada; \$2,751,521 to England, and the balance divided in sums of half a million or less among 10 other countries. Exports were recorded during the year to all important foreign countries with the exceptions of Spain, France, Italy, Austria and Russia.

FIGURES WANTED.

A correspondent writes to ask the following question: "Can you or any of your readers give me the submersion depth of a steam yacht having the following dimensions: Length over all, 40 feet; depth at center, 3½ feet; width outside gunwales, 8 feet; weight, 4½ to 5 tons; also formula by which result is arrived at?"

The receipts from shipping on the Suez Canal for 1896 amounted to £3,183,408, against £3,124,149 in 1895, and £2,951,073 in 1894. The number of vessels using the canal fell from 3,434 in 1895 to 3,409 last year.

NEWS AROUND THE LAKES.

CLEVELAND.

Special Correspondence to the Marine Record.

The Grand Lodge of the Lake Shipmasters' Association will meet at Milwaukee on the last Tuesday in January, 1898.

The Climax Photo-Engraving Co. have published a very handsome calendar and folder, showing specimens of their high-class work.

L. P. & J. A. Smith are figuring on building a steel tug to be nearly 100 feet long, and to be given plenty of power for outside work. Plans for the tug have been prepared.

It has now been decided that the engine for the steel freight steamer to be built by the Cleveland Ship Building Co. for A. B. Wolvin, of Duluth, will be of the four-cylinder kind, but the sizes of the cylinders are not yet fully agreed upon.

Officers of the Wilson Transit Co., of Cleveland, elected a few days ago, are: Capt. Thomas Wilson, president; A. McLachlan, vice president; H. D. Goulder, secretary; directors, Capt. Thomas Wilson, R. McLachlan, J. E. Upson, George L. Quayle and W. D. Rees.

It is now definitely arranged that the Cleveland Ship Building Co. will build a large dry dock and establish an iron and steel shipyard at the adjacent port of Lorain, O. I would like to see a good large stone or concrete dry dock built once, but suppose that would be a decade ahead of the times.

Capt. McDowell, late master of the schooner Moonlight, but for several seasons past with Capt. Orville Green in the steamer Griffin, reports a good season's work and well clear of all casualties. I also met Capt. T. H. Saunders this week and he looks well and hearty as usual.

Many of our readers will be pleased to learn that Capt. Charles Gale, the octogenarian shipmaster and we believe the first white child born at Chicago (Fort Dearborn) is still hale and hearty, though he has given up his farm and now resides at Sombra, Ont. His aged consort, however, has been laid up for several weeks past.

Capt. Persons, of the Thunder Bay Island Life-Saving Station, accompanied by his wife, visited this city during the week and called upon the local station in charge of Capt. Charles E. Motley, who with his brother, E. P. Motley, made their visit as pleasant as possible. Capt. Persons left on Tuesday for home, well pleased with his lower lake visit.

Up to Sunday last, Lake Erie was comparatively clear of ice, but by Sunday night a darling cold blizzard set in and in twenty-four hours coated all water in sight. It now looks as if dame nature intended to disseminate a proper amount of temperature around this latitude in February, and perhaps a little later. However, there seems now no doubt but that the indifferent changeable weather experienced nearly up to date will give way to a steady, firm winter.

The Lake Superior Iron Co.'s steamer Joliet, Capt. E. T. Rattray, made twenty-four round trips between Lakes Superior and Erie during the past season, including a detention of fifteen days in ordinary at this port when freights were low. The success of handling this boat is apparent when it is stated that not the slightest casualty took place and furthermore not even a protest was noted for the whole season. Chief Engineer F. B. Smith, who took the Wade yacht Wadena across the Atlantic on her maiden cruise, was chief of the Joliet all season, and it can be said that he is one among the best.

Special correspondence to the Marine Record.

DETROIT.

Special Correspondence to the Marine Record.

Capt. J. W. Westcott is fighting Uncle Sam's mail service on Detroit River because it injures his business.

Capt. John Nolan has been retired from the command of steamer F. & P. M. No. 3 in consequence of her recent mishap.

Before Judge Swan the following cases were tried this week: Lehigh Valley Transportation Co. vs. steamer William Chisholm; Thompson Towing & Wrecking Association vs. schooner A. J. McBrier and cargo; sale of cargo confirmed.

When Rep. Corliss finished his speech on Wednesday against the purchase of a steamer to handle the mails on the Detroit River, Rep. Loud took the floor and jabbed a few holes into Mr. Corliss' argument. He put an end to the discussion by declaring that Postmaster Enright's plan for a new boat was not before congress in any shape, as the postoffice department had not forwarded it to the house.

The executors of the estate of the late John Oades have asked the probate court for leave to compromise a disputed claim of \$988 against the schooner Saveland, which bill was contracted a year before the death of John Oades. They state that A. A. Parker, manager of the schooner, has offered to pay \$800 in full settlement, and that in view of the cost of litigation and the delay in settling the estate an acceptance of the offer is advisable.

At the ball of the Shipmasters' Association, held here this week, the grand march was led by Capt. M. G. McIntosh and Miss McCollum, and until after 2 in the morning the time was occupied in the disposition of the dancing programme of twenty-four numbers. As was expected, many of the members of the association brought their

entire families, and the sight of the older heads fraternizing with the younger ones, all bent on the search for a good time, was a pretty one. No attempt was made at decorating the hall, which was considered beautiful enough without the lugging in of a lot of emblems characteristic of the calling of the sailor. The supper, which was served in the large dining room on the lower floor, was all that could be asked, and in every way the arrangements showed careful preparation.

Capt. J. W. Millen, president of the Lake Carriers' Association, has selected John C. Shaw for chairman of the committee to go to Lansing to lobby for the money held in the state treasury, as surplus remaining of tolls collected from vessels at the old Soo canal when under state management, the said money being asked as an appropriation for the proposed Soo marine hospital. Mr. Shaw would much prefer Mr. William Livingstone to be chairman, and would willingly work with and assist him. Capt. Millen has had an inquiry from the senator from the third district asking that the resolution of the Lake Carriers' Association be made known to him in the matter at once, and the captain has taken prompt measures to get matters started.

MARINE CITY.

Special Correspondence to the Marine Record.

The barge Boscobel has been given new main and mizen masts and some minor repairs.

The steamer Cherokee has been given some needed repairs between decks and a new mizen-mast.

The Maria Martin is being recalced inside and out. Capt. Rouvel is looking after the work.

Capt. Wm. Smith, who was in the steamer Raleigh the past two seasons, will this year have command of the "Geo. W. Roby."

Capt. A. R. Bell, who was mate of the Star Line steamer Arundell last season, will sail the steamer Jim Sheriffs this year.

The Mills Transit Co. have begun work on the steamer Sparta. She will be given new decks and new top-sides, costing about \$5,000.

Capt. John Jenkins has had a force of men at work making minor repairs to the steamer W. H. Sawyer and consorts Tuxbury and Redfern.

The stern of the steamer Tempest No. 2, which was smashed by the steamer Toledo at St. Clair last fall, has been repaired by Cook and Gray, owners of the steamer Toledo.

Capt. Chas. H. Weeks, the Duluth vessel agent, was in the city last week arranging business matters for next season and calling on old friends. He reports the outlook as gloomy for next season.

Capt. Wm. Hagan, of the steamer Mohegan, who was married last week to Miss Hurley, one of Port Lambton's estimable young ladies, will reside in a handsome new residence on Main street, this city.

The Morley-Hill Ship Building Co. have decided not to build any boats for the present on owners' account and have disposed of their timber to Alex Anderson, who is rebuilding a number of boats at his yard.

The steamer Miami, which has been out of commission for the past 18 months, is to run this season. She will be given new decks and hoisting machinery and will be employed in the river coal and salt trade.

Capt. Chas. Norton has taken the old boiler out of steamer Kate Buttironi. It will be replaced by a large new one of the Scotch type. Her engine which is now a straight low pressure will be changed to a steeple compound.

Capt. J. A. Ward and Thos. Walker have returned from Washington, D. C., where they have been attending a meeting of the Grand Lodge of the Shipmasters' Association. Capt. Ward was re-elected grand sentinel of the order.

The Saint Clair river blocked with ice opposite this port, Sunday noon, effectually closing navigation, which had been open since March, 1896. Travelers to and from this port will now have to come and go by stage; a very disagreeable experience at this season of the year.

Capt. "Gene" Rathburn, of Algonac, who has been sailing master of the steamer Santa Maria the past two seasons, has purchased of F. M. Hubbard one-fourth of the steamer Tempest No. 2, at the rate of \$15,000 for the whole. Capt. Rathburn will sail and manage her himself.

BUFFALO.

Special Correspondence to the Marine Record.

A settlement has been reached between the owners of the steamer St. Louis and G. F. Williams for the damage done the St. Louis here last fall, but no money has been paid over.

Depositions are being taken in the case of the tug Elk for \$12,000 against the Western liner Syracuse for sinking her in Buffalo harbor two seasons ago. An effort will be made to throw the blame on the tug Danforth, which was towing the Syracuse.

Pfohl & Son have bought of the underwriters the Lackawanna liner Grand Traverse as she lies in the bottom of Lake Erie off Colchester, where she was sunk by the steamer Livingstone on October 19 last. The wreck lies in shoal water and can easily be raised.

There is a wide difference of opinion among the friends of the Erie Canal over the proposition to increase the capital of the Wiman Consolidated Lake and Canal Co.

In spite of the opposition of the Buffalo canal-boatmen there are those who argue that the new company will not carry much that the old boatmen are asking for, and that the new blood infused into canal affairs will be a benefit to all. Friends of the Cleveland Steel Canalboat line are afraid that if there is too much agitation there will be remarks as to the rights of outside corporations operating the New York canals.

Gibson L. Douglass has been appointed manager of the Western Transit Co. to succeed S. D. Caldwell, resigned. Mr. Douglass is not new to Central interests. He has been connected with the big four-track road for several years and has the confidence and esteem of the officials. For a long time he was manager of the New York Central Lighterage Co. in New York city, resigning to come to Buffalo to take charge of the big lake fleet. As soon as Mr. Caldwell's resignation was announced Mr. Douglass was mentioned as his probable successor by the men who knew of his executive ability and high standing with the company.

CHICAGO.

Special Correspondence to the Marine Record.

At a meeting of Chicago Harbor, No. 33, of the American Masters and Pilots, held Thursday afternoon, Jan. 21st, Capt. John McAvoy of the steamer Walter Vail, was installed a new member.

The old whaling barge Progress is laying at South Chicago, and is likely to fall into the hands of the junk dealers. Nic Burns, the well-known Chicago junk dealer, has his eye upon her and may probably purchase her.

Several men were nearly frozen to death this week at one of the cribs a mile out in the lake, through their fuel giving out. Assistance was sent from the city almost at the last moment and the men were carried into the stoke-hole of a tug, where they thawed out by the time they reached the shore.

The schooner Kewaunee arrived here Friday afternoon, Jan. 22nd, from Milwaukee. The Dunham Towing & Wrecking Co., having been notified of the schooner passing Waukegan, sent their tug Morford down the lake and towed her into port. This is a rather late winter trip for a schooner over 30 years old to make. Some people are wondering why her owners could not sell her cargo in Milwaukee.

The steamer City of Duluth, Capt. Donald MacLean, ran into this port Saturday for shelter from the heavy gale and blinding snow storm she had encountered. The steamer left Milwaukee Saturday bound for St. Joseph, with general cargo, but being unable to enter that port in the severe northwest gale then blowing, Capt. MacLean decided to run for Chicago. Some of the Chicago papers tried their utmost to make capital out of the affair and to make it another "Chicora" incident, newboys on the streets were hollering extra papers, "All about the loss of the big steamer City of Duluth," at the very time she was entering Chicago harbor all well Saturday night.

PORT HURON.

Special Correspondence to the Marine Record.

Capt. W. W. Stewart, who sailed the steamer Samoa last season, will have command of the steamer Ionia.

A surprise party was tendered Capt. and Mrs. Henry Maitland, of Lapeer avenue, on Monday evening by about 20 couples, it being the twentieth anniversary of their wedding day. A most enjoyable evening was spent by the entire company.

The barge Katie Brainard is receiving a rebuild at the Jenks Ship Building Co.'s yard. It will consist of entire new top sides and everything to put her in first-class shape. About half of the frames for the new steamer are up. They have a large gang of men at work. The jig mill is running day and night.

Edward F. Percival sold to Nelson Mills 373 feet of river frontage, being the Vincent property on Water street. This, in conjunction with Mr. Mills' recent purchase of 100 feet of river frontage on the west, looks as though it means something for Port Huron, as Mr. Mills does not usually allow any property that he has to lie idle very long. Mr. Percival resold to Carleton & Cole 100 feet of frontage off the east end of this property, and we understand they will erect a warehouse and machine shop on it in the spring.

Citizens of Algonac are all anxious about the Detroit & St. Clair River Railroad. The promoter can't afford to leave out a town and section that has a larger passenger traffic than any other stop on the route. The French road was a great boom to Algonac and property advanced in price fifty per cent, but since that road has failed everyone who was interested in the welfare of the beautiful summer town has lost hopes. John A. Smith has tendered to the new company the right of way over the old French route free of cost, and people think that this will bring the road to Algonac.

It is now stated that the burned and sunken steamer Australasia is gradually going to pieces. Her starboard side is entirely gone and the port side is going fast. Most of the coal cargo is washed ashore in windrows and been picked up by farmers and others residing in the vicinity of the wreck at Whitefish Bay. The boilers are in about the same position as left by the wrecking company last fall, the domes sticking out of the water several feet. In case ice forms along the shore, as it usually does, the boilers will be totally ruined. The wrecking company has had about as much success with its operations on this

craft as it had on the schooner Mattie C. Bell, which is practically nothing compared with the expense incurred. The "Mary" is still making daily trips between here and Algonac. There is no ice to interfere with her as yet.

Senator McMillan called up in the senate this week and secured the passage of the Snover bill for a life-saving station at Fort Gratiot. He also secured favorable action by the senate on the bill granting a medal for life-saving to Daniel E. Lynn, of Port Huron. He has been endeavoring to pass this bill for some time and finally obtained a recommendation from Secretary Carlisle, which was influential in securing the passage of the motion to award the medal.

MILWAUKEE.

Capt. S. T. Larsen was run over by a street car this week and fatally injured, dying within an hour after the casualty. He leaves a widow and seven children. The street car men were arrested but afterwards released, as no blame could be attached to them.

FLOTSAM, JETSAM AND LAGAN.

Mr. John Craig, principal of the Craig Ship Building Co., is favorably spoken of as the next mayor of Toledo.

Testimony in the collision case between the steamer Rochester and the schooner A. Mosher will be taken in Chicago soon.

Drake & Wallace, of St. Joseph, are building a \$10,000 river steamer, 80 feet long, the engine for which will be taken from another steamer.

E. W. Heath, of Benton Harbor, will put a Roberts water tube boiler into the wooden steamyacht he is building for H. B. Larson, of Manistee.

Charles D. Lester, of Marine City, shuffled off this mortal coil last week because he thought that he had lived long enough and might grow taller in the next world.

In addition to the steamer and two schooners, James Davidson, West Bay City, is completing two large tugs, 99 by 20 by 10 feet, having compound engines 16 and 30 inches by 30 inches stroke.

The Alpena Pioneer says that Capt. Martin Small, formerly keeper of Crisp Life-Saving Station, Lake Superior, has been appointed keeper of Ottawa Point station near Tawas, in place of Capt. Ocha, who disappeared last fall.

The Evening Wisconsin has a large head line on its front pages as follows: "Like a ship in full sail, the steady advertiser is first to feel the breeze of reviving trade," a sentiment which all wide-awake men can heartily endorse.

At Green Bay the small steamer Imperial will receive nearly all new frames, new ceiling, recalking and false side 3 feet wide; the schooner Ida Olsen new fender strakes, rudderpost, rudder, mizzenmast, several new planks on either bow and thorough recalking.

John A. Currier, formerly chief engineer of J. M. Forbes' steam yacht Wild Duck, is now in Duluth, Minn., overhauling the Belleville boilers in the twin-screw steamers North West and North Land, in connection with G. L. H. Arnold, of New York.

Fishermen report that there is no ice on Lake Erie and that navigation could easily be carried on between all Lake Erie ports. This week, however, tells a different story, and the impression now is that February is to be a record breaker for cold freezing weather.

Caesar and Pompey.—"De vannerty of woman hab played me a drefull trick, Pompey." "How's dat?" "I borrowed a fowl from de Colonel's henroost some time er-go. It was so tough we couldn't git de teef troo it, but my ole woman mus' go an' wear de fedders in 'er Sunday bonnet, and de Cornel he spot de fedders an' lock me up for fowl-stealin'."

According to Capt. C. H. Sinclair, who has returned to Chicago from Toledo, the steamer J. S. Fay suffered severely while on the rocks at St. Scott's Point, Lake Michigan. Her bottom planking from stem to stern and bilge to bilge will have to be renewed, and she will also require a new forefoot and part new stem, as well as sternpost, rudder and wheel.

Transfers of vessel property recently recorded at the Milwaukee custom office are: Tug Lindrup—Cecilia Sorenson of Manistee to Fred. T. Schram of Milwaukee, the whole, \$2,500. Tug L. A. Schultz—Fred. T. Schram to Theodore G. Schramm of Milwaukee, one-third, \$2,100. Schooner Norman—Peter Anderson to Peter F. Goodlet of Ephraim, Wis., one-half, \$170.

About 400 men are now employed at the Davidson shipyard, West Bay City. Two schooners and a steamer are well in frame and work is being rushed to secure their

completion at the earliest opening of navigation. The engines and boiler for the second tug building at the yard are on the ground. The engines are the work of the Frontier Iron Works, of Detroit, and are models of their kind, being of enormous power for lake work. The yard has plenty of material and the mills are kept running with a full crew.

"Pop," said Willie, "why is it called a gymnasium?"

"Why? Why, because that's its name—ah—"

"Yes, I know that," said Willie, "but why didn't they call it a Tomnasium or a Bobnasium, eh?"

The Buffalo Evening News printed a two-column article lately on the grain contract awarded to Mr. Kennedy at the annual meeting of the Lake Carriers' Association. Capt. Killeren having as bondsmen Messrs. John Kelderhouse and Wm. Berriman, put in the lowest bid, but was not awarded the contract. Consequently, the Evening News insinuates in its two-column screed that the grain committee making a majority report, were somewhat influenced in their choice of a contractor. Mr. Kennedy also held the contract last year.

IN WINTER QUARTERS AT PORT HURON.

The following vessels are in winter quarters at Port Huron, Sarnia and Marysville:

Steamers—Maggie Duncan, L. S. Porter, Dormer, Beard, Mary Groh, Simon Langell, P. Chamberlain, City of Bangor, White Star, Alaska, Business, Wilhelm, Ed. Jenks, Linden, City of New York, Hiawatha, Clark, Argonaut, Cleveland, D. Leuty, St. Maria, Pawnee, R. Stewart, A. Sumner, Aztec, Colorado, H. E. Runnels.

Barges—Favorite, Eureka, Breden, Atmosphere, Board of Trade, Interlaken, W. K. Moore, Wm. Brake, Arenac, Conrad Reid, Chicago Board of Trade, Maxwell, Brainard, A. J. McBrien, A. Jackson, J. L. Quinby, Eva, Interlaken, Magnet, A. W. Comstock, D. P. Rhodes, Tyson, Church, Mt. Blanc, Botsford, Wesley, Grandy, A. Smith, Magnet, L. L. Lamb, St. Lawrence, Montgomery, Geo. Irwin, Sonsmith, E. T. Judd, A. P. Grover, American Giant, C. Crawford, W. W. Stewart, Robinson, Dashing Wave, Lightship 61, Miztic, Wesley, T. H. Cahoon.

Tugs—Fred A. Lee, Martin, Runnels, Stanwood, Roy, M. F. Merrick, Puller, R. T. Roy, Joy, Alert, Vulcan Brockway, Haynes, Mary Virginia, Thompson, C. L. Boynton, Crosby, W. W. Richardson, Jas. Adams, Vivi Lark, J. P. Clark.

AT SARNIA.

Steamers—Lily Smith, United Empire, Monarch, Unique.

Schooners—St. Louis, Prussia, Brake, Cataract, Azoy, Southampton, Fanny Campbell, Glenifer, Bavaria, Blake, Jupiter, Aurora.

AT MARYSVILLE.

Steamers—Plover, Harley, N. Mills, Hendall, Mineral Rock, Scott.

FLOGGING SAILORS.

According to a special from Washington Mr. Frye, a republican senator from Maine, said on Tuesday in presenting a remonstrance of a labor union against the restoration of flogging in the merchant marine, that there was no amendment pending in the senate, or any bill that restored flogging in the merchant marine. On the contrary, the amendment referred to in the unanimous opinion of the senate committee on commerce gave greater security than the existing law or any other bill pending in congress to the sailor against the brutality of any master or officer at sea.

It is somewhat strange that the impression had become general relative to such a bill and during the last few days we have received several inquiries regarding same, hence our inquiries at Washington.

SUNDAY SERVICE.

A story is told about the captain of the Natal liners (Cape of Good Hope.) One Sunday recently it occurred to him that it would be well to have a service for the sailors on board his ship, and, as he was not very used to that sort of thing, he consulted the purser, and got several valuable hints from that worthy. The service was duly announced; but at the time appointed only one sailor turned up. The captain thought that this was not quite good enough, so he dismissed the congregation, with instructions that he could have a glass of grog. The congregation had his grog, and was jubilant. The following Sunday another service was announced, and at this all the sailors turned up. They had what seemed to them an interminable service, and were then dismissed. But they hovered about, and presently asked politely where the grog was. "Oh," said the captain, "we don't have grog every Sunday; you see, last Sunday was Epiphany Sunday."

ACTION OF LAKE SHIPMASTERS.

The grand lodge of lake shipmasters, in session at Washington this week, registered its protest against the international railroad draw bridge which it is proposed to erect over Grand Island, Niagara River, and which would obstruct that river badly for the vessel and other interests that find use for it. The Lake Carriers, at their annual meeting, also protested against it.

Another matter taken up was the licensing of masters and pilots of sailing craft on the lakes. As the matter stands now they know little or nothing of lake navigation and the details which they should know for the safe conduct of their boats. What is wanted is an amendment to the existing steamboat inspection rules compelling men who wish to command or hold responsible positions on sailing craft to submit to an examination as to their fitness for the work, as is demanded of masters, pilots and mates of steam vessels.

The grand lodge takes issue with the Lake Carriers as to the necessity of changing the rules for the government of navigation in the St. Mary's River. The executive committee of the association, to which the matter of changing the rules was left, recommends certain changes. The grand lodge officers consulted with Chief Shoemaker, of the revenue service, and convinced him that the rules are all right as they stand. It is not likely, in the face of this action of the masters and of the fact that last year the collisions and other accidents in that river were less than ever before—and all because of the excellence of the rules as they are—that there will be any change.

JUDGEMENT AFFIRMED.

The supreme court of Illinois has affirmed the judgments of the appellate and circuit courts of Cook county in the case of the Sturgeon Bay and Lake Michigan Canal and Harbor Co. against Leatham & Smith of Sturgeon Bay. The canal company sued Leatham & Smith to recover toll charges on tugs in the sum of \$3,044.67, and on vessels of \$415.96—making in all \$3,460.63. The lower courts disallowed the toll charges on tugs, but held that the vessel tolls were valid, and rendered judgment for the \$416.96 claimed in the latter connection. The supreme court decision puts an end to the litigation and gives Leatham & Smith a substantial victory.

PARKER'S VIEW

A. A. Parker, of Detroit, was last week at Buffalo looking after the interests of the Parker & Millen fleet. He spoke in very moderate terms of the outlook for the season, especially at the opening. He looks for an acceptance of the offer of 80-cent ore from Lake Superior, but believes that the general business of the country is going to improve steadily and that the lakes will profit from that source. As to the Rockefeller fleet, he does not fear it greatly. As Rockefeller has now enough ore to keep his fleet busy he is not naturally interested in cut rates or low freights.

NOTES.

D. Van Nostrand, 23 Murray street, New York, has recently published a treatise on screw propellers and marine propulsion, by Isaac C. Chase.

The Davis-Farrar Company, of Erie, Pa., have published a catalogue descriptive of their centrifugal pumping machinery, single, compound and triple expansion marine and stationary engines and boilers.

We are sorry to learn that Capt. Daniel Wall is seriously ill at his home in Marinette, Wis. Under skillful medical treatment it is expected that he will be able to attend to business again in a few days. His correspondence has been especially neglected, but he will catch up with it as early as possible.

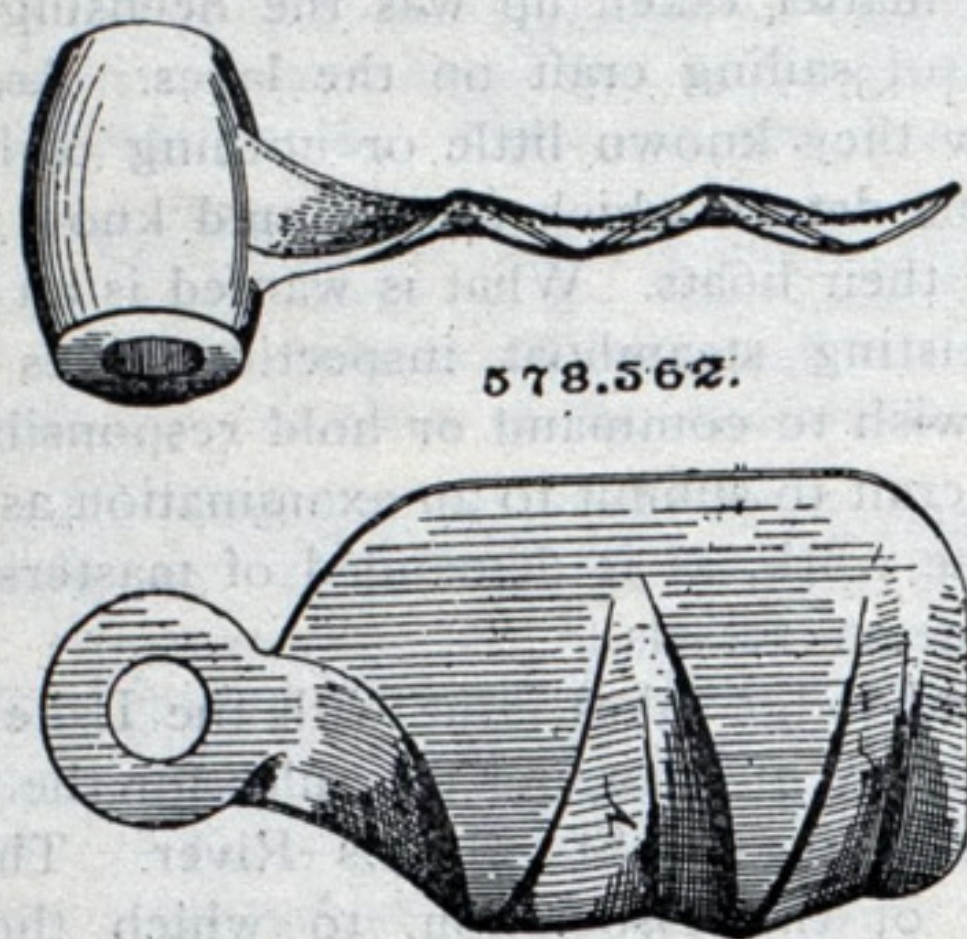
The "Case" propeller-wheel is meeting with much favor in Canada. Mr. E. S. Pratt, owner of the Parry Sound towing and yachting fleet, says: "When in want of any more wheels I shall certainly order the 'Case.'" Mr. Geo. Clayton, of St. John's, P. Q., also speaks loud in the praise of the "Case" wheel for small tonnage.

The bill putting naphtha launches under the supervision of the steamboat inspection service, and which is known as senate bill No. 1646, is now a law. This is the compromise which, although requiring naphtha launches of 15 tons and over to carry licensed officers, does not interfere with owners of small launches handling their own boats.

RECENT MARINE PATENTS.

No. 573,562—Propeller. Frederick Wittram, San Francisco.

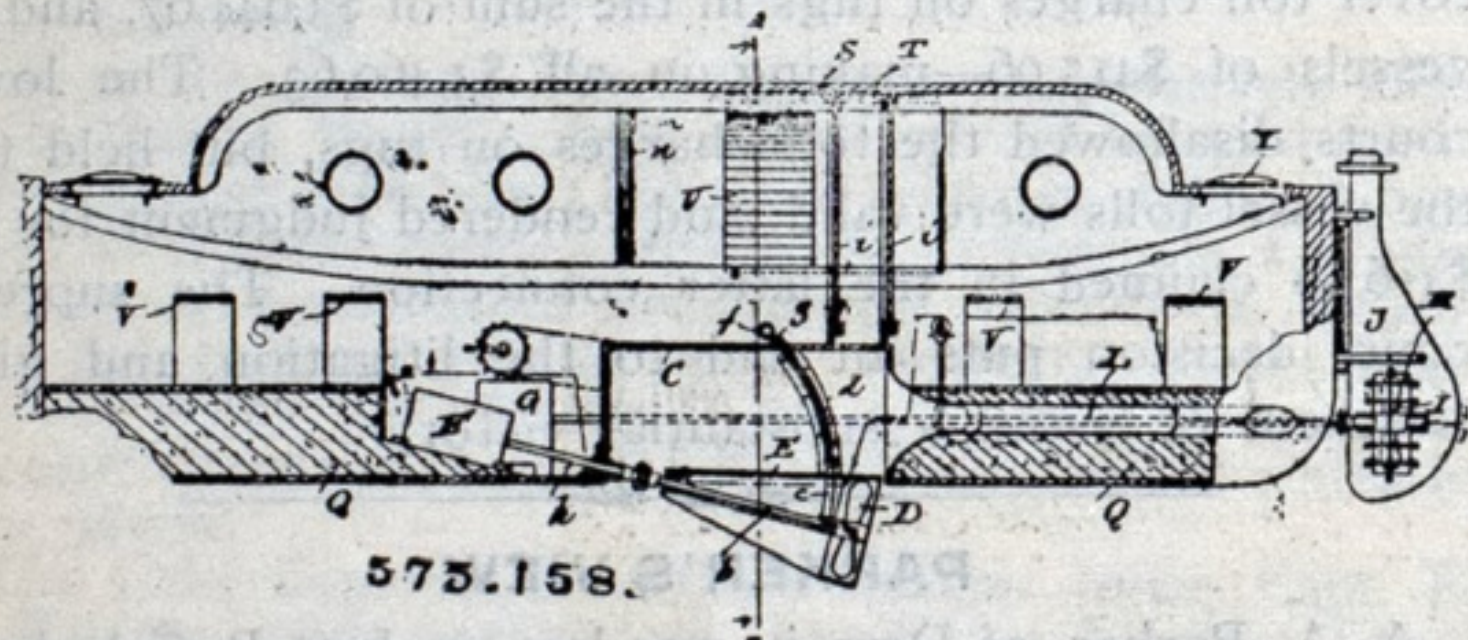
A propeller consisting of radial blades, the front edges of which are composed of inclined planes meeting each other at an angle to form a zigzag line, said planes decreasing in depth transversely so that the rear edge of the blade is less irregular. Blades extending radially from



the hubs with an appropriate pitch, the rear edges of blades being slightly irregular and the front edges forming zigzag lines caused by the meeting of oppositely-inclined planes whereby transverse valleys are formed, decreasing in depth from the front to the rear of the blade.

No. 575,158—Screw-Propeller for Life Boats. Julius Huebner, Milwaukee, Wis.

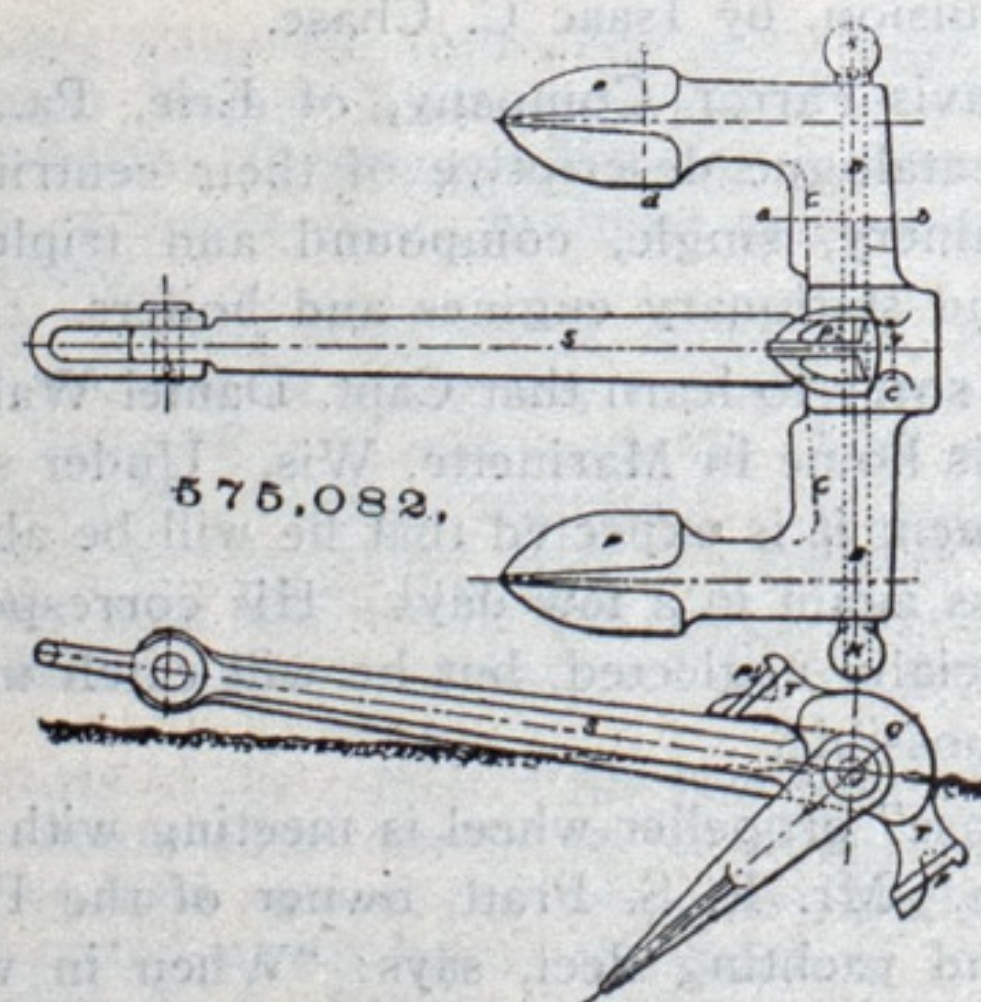
A life boat having a water-box extending upward from its bottom, a channel leading from the water-box through the stern of the boat, and a propeller adjustable in the matter of elevation to come wholly within the water-box. Having a two-compartment water-box extending upward from its bottom, a channel leading from each compartment of the water-box through the stern of the boat, and



twin propellers adjustable in the matter of elevation to come wholly within said water-box. A lateral channel leading from each of those aforesaid through a side of said boat, gates arranged at the junction of the channels, rotarily-adjustable bends on the outer ends of the lateral channels, and twin propellers adjustable in the matter of elevation to come wholly in said water-box.

No. 575,082—Anchor. George Tyzack, South Shields, England.

In an anchor the combination with a shank, of a crown-piece having a recess to receive the eye of the said shank, holding-arms at the ends of the said crown-piece, and tripping-arms having hollow backs at the center of the said crown-piece, a bolt having a knob on one end pass-

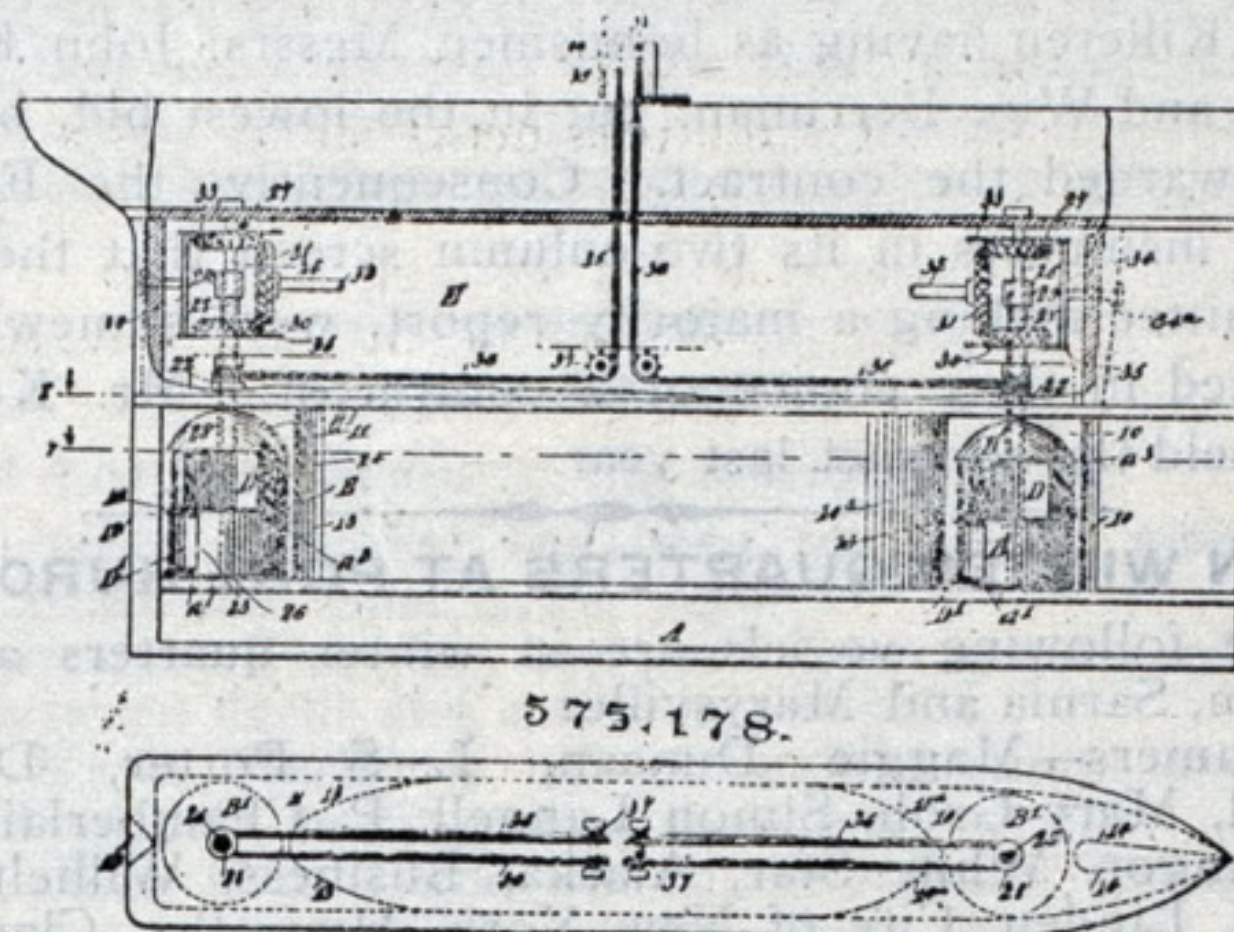


ing through the said crown-piece and the shank, a knob on the other end of the said bolt, and a pin passing through the knob and bolt to hold the knob in position.

No. 575,178—Propulsion of Vessels. Frank O. Slanker, Pomona, Cal.

A combined rudder and propeller, comprising a casing mounted to revolve and having openings at angles to one another in one of its faces, shafts within the casing and paddles located within the said casing and respectively

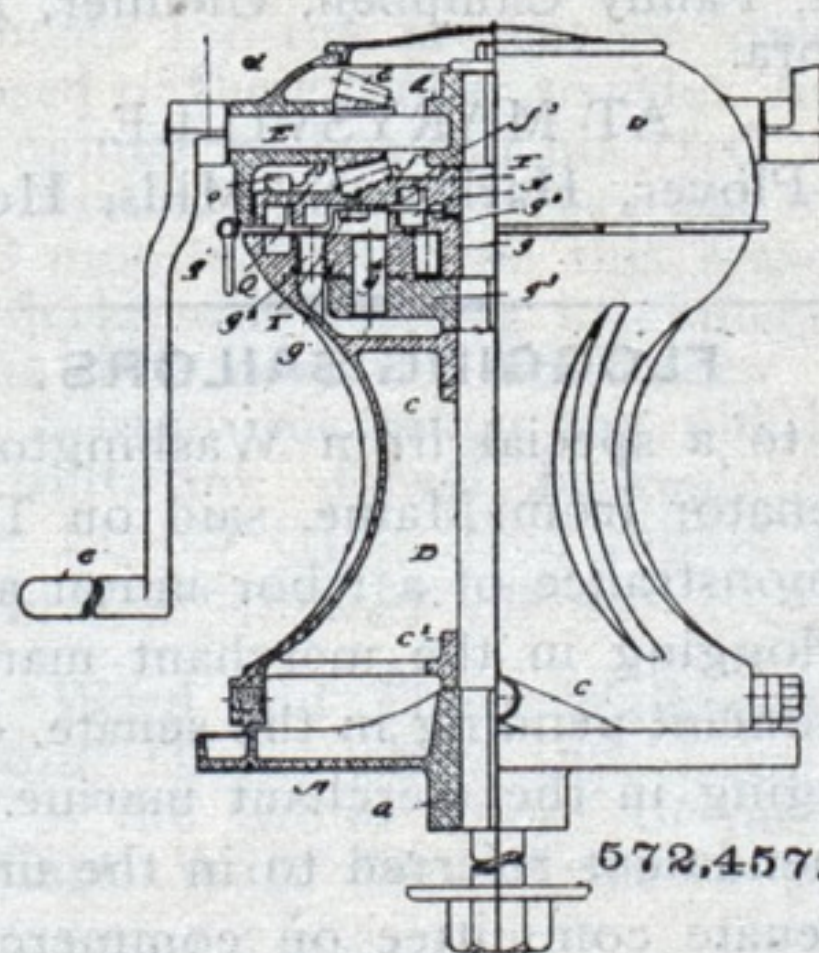
fixed to the shafts one paddle being opposite each of the aforesaid openings, and the paddles being at angles to one another, the said casing and each of the said paddles being capable of independent movement. In the construction of a vessel, a hull having a bow and a stern opening, a cylindrical casing constituting a rudder mounted to revolve in the said bow and in the said stern openings, each cylindrical casing having openings in its side at right angles to each other and located one above the other, propeller-paddles located within each casing opposite each of its side openings, the propeller-paddles having the same relation to each other as the openings in the casings, a driving mechanism arranged to simultaneously operate all



of the propeller-paddles and impart to corresponding paddles of each casing an independent and reverse movement, and a steering device connected with the aforesaid casings, whereby the casings are turned independently of the movement of the said paddles.

No. 572,457—Capstan. Henry L. Smith, Seekonk, Mass., assignor to the American Ship Windlass Company, Providence, R. I.

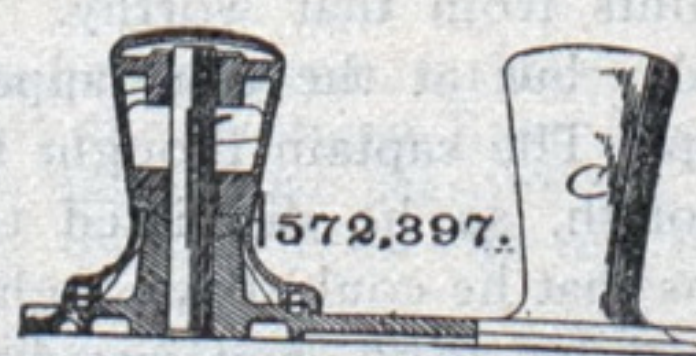
A crank-capstan, such as described, the combination with a crank-operated driving shaft, a rotatable driving disk or plate geared with said shaft, a capstan-barrel, and a compound gear, of two independent sets of pawls all carried by said rotatable driving disk or plate and adapted to engage with said capstan-barrel or with the compound gear, and a single pawl-tripper also carried by the rotatable driving disk or plate in operative relation to all of the pawls and adapted to throw one set of pawls into en-



gagement with the barrel or the other set of pawls into operative relation to the compound gear, whereby the single pawl-tripper may control the pawls and cause the capstan-barrel to be rotated in either direction and at variable speeds from the driving-shaft, as set forth.

No. 572,397—Riding or Mooring Bitt. Jacob R. Andrews, Bath, Me., assignor to the Hyde Windlass Company, same place.

A mooring or riding bitt, comprising a base, a spindle projecting upwardly from said base with a movable shell thereon, and a pawl-and-ratchet connection between the moving and the fixed parts, and a fixed bitt secured to or forming a part of the base whereby is provided a mov-

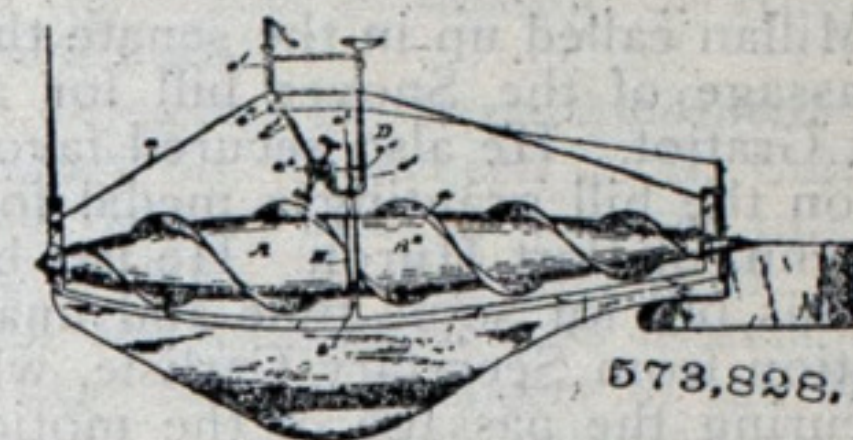


able bitt adapted to be rotated to allow the line or hawser to be rounded upon the capstan and a fixed or stationary bitt to which the line may be tied or secured.

No. 573,828—Marine Velocipede. Stiles E. Maxon, Portland.

A marine velocipede comprising a two-part fusiform body portion, a shaft connecting the two sections and car-

rying a sprocket-wheel, a keel supporting the body, an upright extending from the keel between the two sections and constituting at once a support for the shaft, a seat-frame, and a housing or casing for the sprocket-



chain, and driving mechanism on the frame for imparting rotary motion to the body portion. Driving mechanism on the frame for imparting rotary motion to the body-portion, and means for maintaining an upright position of the velocipede when in use, and a weighted false keel for maintaining an upright position of the velocipede, and steering mechanism operated from the seat.

DECISIONS UNDER THE TARIFF AND NAVIGATION LAWS.

Regulations for admission of Officers and Crews of Revenue Cutter Service to Benefits of Marine-Hospital Service.

(Department Circular No. 157.)

Treasury Department,
Office of Supervising Surgeon-General,
U. S. Marine-Hospital Service,
Washington, D. C., November 18, 1896.

To Medical Officers and Acting Assistant Surgeons of the Marine-Hospital Service, Collectors of Customs, and Others:

The following regulations are hereby issued for your guidance with regard to the admission to the benefits of the Marine-Hospital Service of the officers and crews of the Revenue Cutter Service:

I.—CERTIFICATE.

1. The officers and crews of the Revenue Cutter Service will receive hospital or office treatment as herein after provided on certificate signed by the commanding officer, or executive officer of a revenue cutter, without regard to length of service; the certificate shall contain description of person. Officers on leave or waiting orders to sign their own certificates.

II.—HOSPITAL RELIEF.

(a) Any such officer or seaman whose condition absolutely requires treatment in hospital will be admitted to hospitals at stations of the first class, and to all contract hospitals enumerated in the annual circular entitled "Contracts for Care of Seamen" subject to the provisions of the said circular with regard to the transfer of patients from a contract to the nearest marine hospital.

(b) No admission to hospital will be granted at any port not mentioned in said circular.

(c) At all ports mentioned in the circular, where no specific arrangements for treatment in hospitals are made, the regulations governing admission at third-class (emergency) stations will be enforced.

III.—OFFICE RELIEF.

(a) Office treatment will be furnished at all stations where there is a medical officer or acting surgeon of the Marine-Hospital Service.

(b) At all other stations office relief will be granted only in case of emergency and under the provisions of the regulations relative to third-class (emergency) stations.

(c) No other relief will be granted at any station not mentioned in the annual circular, and in all other respects the regulations of the Marine-Hospital Service will be complied with.

All regulations inconsistent herewith are hereby rescinded.

WALTER WYMAN,

Supervising Surgeon-General U. S. M. H. S.

Approved by direction of the President:

J. G. Carlisle, Secretary.

The regulations relative to allowance of drawback on the exportation of locomotive steam boilers manufactured from imported brass and copper boiler tubes (schedule of August 1, 1896, Synopsis 17355), are hereby extended to boilers manufactured from imported steel boiler tubes.

A WISE SELECTION.

It is a little strange that yachtsmen on the coast should go to the lakes to have their boats built, but such is the case; a Mr. Osbourne, is having built by the Marine Iron Works, of Chicago, Ill., a small steam yacht for service on the seaboard.—American Shipbuilder, New York.

LEBANON CHAIN WORKS.

The Lebanon Chain Works, Lebanon, Pa., was organized in 1891 and has been in successful, continuous operation since that time and carrying on a most flourishing business.

The officers of this important industry, which is national in its requirements of output, are men of more than ordinary business qualifications, and are well known throughout the East in iron circles. They are as follows: Thos. Evans, president, who is a recognized leader in the rolling mill business, having devoted 45 years of unremitting toil to the cause; Herbert Hecht, with 15 years' experience in mill work, and generally regarded by iron men as one of the "coming men" in this particular branch, is secretary; H. T. Atkins, treasurer, is well known throughout the Keystone State, and enjoys the confidence of a host of friends; Eli Attwood is superintendent; to his well-directed efforts, with 30 years' experience, can be ascribed much of the success of the concern.

These men, by their combined fitness, have placed upon the market a high class of work unparalleled in the history of chain manufacturing. This is a statement that is even admitted by their competitors.

During the past four years they have been supplying the United States government with "light-vessel" chain, and to those familiar with the exacting requirements of "Uncle Sam," the fact will at once commend itself of the recognized superiority of the goods.

On their 2-inch light-vessel chain they have taken the world's record. The breaking test on the above size, made last May, by United States Inspector Morgan, was 274,000 and 271,000 pounds, respectively, whereas the government only requires 250,000 pounds. These and other similar

will not stand present rates in comparison with the very low berth freights on the spot. The position in the Atlantic cotton ports shows no change, and freights in the gulf ports bear a tired look for every commodity but timber, for which freight the demand is still fairly brisk.

We can only again report a very quiet market for sail tonnage. Supply of vessels remains very limited, although well up to the momentary small demand. Rates continue firm, however, since tonnage to active is offering less plentifully than of late, and we do not therefore at present look for any material change.

OFFICERS LAKE SHIPMASTERS' ASSOCIATION.

The Grand Lodge of the Shipmasters' Association in annual session at Washington last week, elected the following officers: Grand president, George McCullough, Detroit; first vice president, W. E. Rice, Port Huron; second vice president, Robert Young, Chicago; treasurer, Lyman Hunt, Buffalo; secretary, W. A. Collier, Cleveland; chaplain, J. A. Holmes, Cleveland; marshal, N. V. Nelson, Cleveland; warden, Alex. McKay, Detroit; sentinel, J. A. Ward, Marine City.

SAILORS AND MARINES.

"What earlier sailors endured" is described in an article with this title, by Lieut. Com. J. D. Jerrold Kelley, U. S. N., in an article appearing in "Harper's Weekly" for Jan. 16. In it he thus describes the origin of naval hostility to marines.

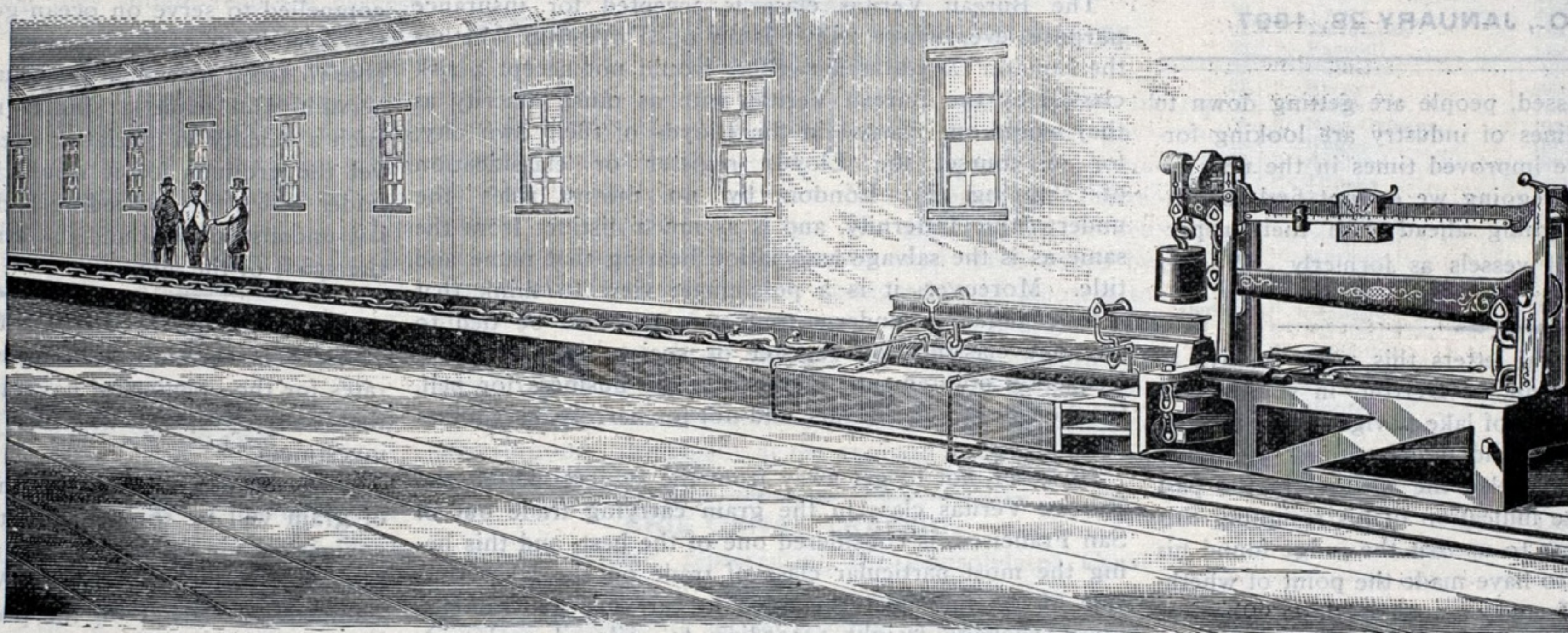
In those parlous days, in all services, as in these days with the English and ourselves, the marines were the ships' police, and bitter was the hatred in which they and all other soldiers were held by the old-time mariners. The

"A messmate before a shipmate; a shipmate before a stranger; a stranger before a dog; but a dog before a soldier."

This was, of course, a briny growl, a rough sea humor, redolent of tar and marline spikes, but with enough of shadowy truth to make it palatable to a "fo'k's'le" audience. For those were the days when these hearts of oak endured only their own class, and cherished a curious antipathy to landsmen in general and to soldiers in particular—beggary lubbers and lobster-backs and jollies, as they dubbed them.

Up to the second half of our century this dislike included the marines; indeed, its persistency was due to them; for when not drilling and fighting—and there was plenty of both—the routine work of marines on shipboard was police and sentry duty. The proper performance of this brought them into rough-and-ready conflict with all violators of sea discipline; and as the blue-jacket was apt, in and out of season, to run amuck, and to get caught at it, turn at the gratings came too often to let him feel kindly toward the person who had reported him. This dislike was often encouraged by the officers, at least negatively, and for what they called "the best interests of the service." In some ships the marines were isolated from the seamen by a line as clearly cut as that separating the officers and enlisted men, and any association was discouraged, as tending to impair the discipline.

It can be easily imagined that the life of the marines under such circumstances was not a happy one. Their constabulary duties were trying and ungrateful; their charges were enterprising and reckless. Posted between two fires—Coventry forward, black list aft—they got many of the kicks and none of the ha'pence; but be it



RIEHL BROS.' CHAIN TESTING MACHINE, LICENSED BY LLOYDS, LONDON, AND IN USE AT THE LEBANON CHAIN WORKS, LEBANON, PA.

results have given the government such unlimited confidence in their work that in giving out specifications for the building of their dredges they specify the Lebanon Chain Works chain.

The management has one of Riehle Bros. testing machines, herewith illustrated and it is one of the best that this noted firm is capable of turning out. It has a capacity of 300,000 pounds, and is the second machine ever licensed by the Lloyd's Association, of London, Eng., for testing chains in this country.

OSWEGO COMMERCE.

The total value of exports out of Oswego, N. Y., for the season of 1896 amounted to \$1,826,190; imports, \$2,630,810. Lumber receipts were 68,830,000 feet.

The imports from Canada show that the Dominion shipped to Oswego \$804,620 worth of grain and merchandise in excess of what was exported there. The shipments of coal from Oswego for the season amounted to 635,090 tons, an increase of 150,491 tons over the season of 1895.

EASTERN FREIGHT REPORT.

According to the Eastern freight report as furnished the Record by Messrs. Funch, Edye & Co., New York:

The latest report shows a considerable number of fixtures from the principal grain exporting ports, and owners, in cases of special size and position, have secured advanced freights in the closing up of open trades, we regret to have to affirm our last week's remarks, viz.: that "the market is not a basis for fresh trades, which

dislike for soldiers by sailors dated from the early days when the former commanded fleets; for originally the sailors who worked the English ships were not the fighting men. "It was the sagacity of the Tudor sovereigns, Henry VIII. and Elizabeth, which devised a separate class of fighting sea officers, trained to the sea. Until the supremacy of the English over the Dutch navy was at last secured, soldier officers and sailors were still much intermixed."

Still, the scions of good families who were soldiers and not sailors did press their way into a service which was always popular, and by family influence, which was and is still potent in that branch, did force themselves above the heads of more deserving men. No one liked this, fore and aft, and the hatred engendered lay at the bottom of much of the discord which wrecked so many joint expeditions. The feeling found expression in the lower ranks by such terms as "landlubber" on one side and "drunken swab" on the other; while in the higher grades men like Gen. Mostyn, as reported by Horace Walpole, declared "he was not amphibious enough to like seamen, because there was as much difference between a sailor and a landsman as between a sea horse and a land horse."

All readers of the "Pilot" will remember Coxswain Long Tom Coffin's answer when Capt. Burroughcliff tried to persuade him to enlist in his soldier company, so that he might secure his life and liberty. "Tom did not laugh aloud," writes Cooper, "for that was a burst of feeling in which he was seldom known to indulge, but every feature of his weather-beaten visage contracted into an expression of bitter, ironical contempt," as he "gave vent to his emotion in these words.

said that they rarely failed when called upon to assist in the maintenance of discipline and in the suppression of disorder. As both classes progressed in intelligence, and were better cared for in food and pay and in liberty to go ashore, police duties grew lighter, and, finally, when hard drinking was banned fore and aft, and the grog ration was abolished, a friendlier feeling was established, and the old lines of personal antagonism gradually disappeared.

I say personal advisedly, for it must be recognized that the official presence of marines on shipboard is deemed a slur, a reflection upon the seamen, and these naturally ask: "Why should a soldier be hired to watch a sailor? Why should the billets of seagoing men be taken by people who are not trained for sea work and not expected to perform it?" As it is, the complements of ships are altogether too small for the cleaning, coaling, sailing and fighting, and why should they be reduced still further by the employment of men who do not clean, coal nor sail them?

These are very interesting and useful questions, which somehow seem to fail of an answer.

OGDENSBURG WINTER MOORINGS.

The winter fleet at Ogdensburg includes the Ralph, Harold, Superior, Marquette, Omaha, Denver, Pueblo, Monteagle, John Rugee, Josephine, Elfin Mere, Queen of the West, Servia, Halloran and Ganges, loaded; also the Averill, Frost, Smith, Langdon, Hecla, Starke and West Side, light. The loaded vessels are lying eight deep awaiting their turn at the elevator.



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CLEVELAND, O., JANUARY 28, 1897.

The holidays have passed, people are getting down to business again and all lines of industry are looking forward to better and more improved times in the near future. Apropos of the foregoing we do not find the Inland Lloyds surveyors going ahead with their inspection and classification of vessels as formerly. Wonder what's in the wind?

We have received several letters this week relative to the decision of Judge Swan, of Detroit, in stating that Nov. 30 was the closing date of lake navigation in 1894, as considered by ship owners and underwriters. A higher power than the judge has ruled the weather in the past and there is no immediate indication of his resigning this special charge. It appears to us that the judge found his "trolley off," and ought to have made the point of whether insurance could be effected or not, and if so, who was to stand the premium. Please, judge, don't close us down on Nov. 30 any more.

There has been for the past few years quite a change in marine insurance on the lakes, not only in rating of vessels, but also in the general policies and rates of insurance. The trade has become too extensive for the one-horse methods of years ago, when each general agent presumed to know all about each risk and they have now got beyond their depth in numbers and mode of construction. There is wanted on the lakes a good classification society, besides the Inland Lloyds, though we recognize that some pioneer work is necessary before the confidence of owners and builders can be secured to adopt universal rules.

A New York contemporary being asked recently how many ropes there were on board of a full rigged ship replied that they were as frequent as bricks in a house. Now this is all wrong. We won't say that there is not a single rope aboard of a full rigged ship, but certain it is that there is only a very few, as for instance, a tow rope or foot rope, every other piece of cordage has a distinct name and function. No one ought to call a chain fore-tack a rope, not to mention royal studding sail halyards, etc. However, if our esteemed New York contemporary was caught by the lee in thus answering his correspondent he need be no more taken aback than the admiralty lawyer was when the judge brought him around to the point after the lawyer had argued that the main sheet was a piece of canvas. Well! all jokes go free till Christmas comes around again, but please don't perpetrate them on a fun-loving public too often. Nuff said.

CLASSIFICATION AND RATING OF SHIPS.

From present indications the Bureau Veritas, a universally known French classification for the rating of shipping, will soon take the lead on the lakes and become the special authority on ship construction and rating for building, and insurance purposes.

The bulk of the new tonnage is now being built under the rules of that association, which by the way has only been on the lakes, that is, with a lake manager appointed, for three or four seasons past.

It is simply wonderful how this lake trade expands. In the connection of classing vessels, it is not half a dozen seasons ago when vessel owners and ship builders were asking what does this (to them) new fangled notion of rating and classification in universally known societies amount to any way, and furthermore, what is the Record talking or writing so much about them for? The almost unknown loss, or the reason therefor, of two large powerful metal steamers kept builders and owners guessing for awhile until they finally perceived the advantage of contracting and building vessels under generally accepted rules both as regards material and construction.

About this time the domestic register known as the Inland Lloyds, had a chance to branch out and hold its own by appointing properly qualified inspectors, but it failed to do so, and steamers were rated according to what they cost to build rather than upon the merits of construction, etc. Hence, the natural and only logical sequence, viz.: the Inland Lloyds' vessel register has been to a great extent ignored and other societies or as we have said, mainly the one, is picking up the thread of the industry and going right ahead on a basis understood by the shipping community the world over.

The Bureau Veritas class is accepted for insurance purposes everywhere and it is an open question whether the London Lloyds underwriters would not accept a risk classed by the Bureau Veritas with as much alacrity as they would one classed in the Lloyds of their own city, for of course, the Lloyds register or classification of shipping in London by no means rules the underwriting fraternity, and is as much distinct from the same as is the salvage association bearing that name and title. Moreover, it is a pessimistic view to think that men engaged in underwriting are or would be tied to any one classification register or society. As we have frequently pointed out, they are in the business for pelf, for their health and ducats, and not for narrow discriminations.

However, not to get away from the subject matter, the Bureau Veritas class in the grain carrying trade out of San Francisco, is considered one of the best, and this being the most particular class of trade on the lakes outside of the line boats engaged in carrying general cargoes (package freight according to railroad parlance), there is no reason why it should not be accepted as the standard here also. In a word, it is fast getting there.

SEAMEN'S OBLIGATIONS.

An opinion has been delivered in the Supreme Court of the United States at Washington, by Justice Brown in the case of Robert Robertson and four other seamen against the United States.

The case involved the constitutionality of section 4,589 of the Revised Statutes, giving power to justices of the peace to arrest deserting seamen, and also the question as to whether the provision of the thirteenth amendment to the constitution, prohibiting involuntary servitude, had not been violated in the arrest of Robertson and his companions.

The seamen were taken into custody at San Francisco on the charge of having refused to obey the orders of the master of the vessel Aragon, after having entered into articles to make a voyage to Valparaiso. They applied to the Federal District Court for writs of habeas corpus, and upon the refusal of their petition appealed to the Supreme Court.

Justice Brown's opinion affirmed that of the District Court, the court refusing to interfere in the case. The arrest of the sailors under the circumstances was a due exercise of judicial power. No involuntary servitude was involved in compelling seamen to serve for the time agreed upon. The term "involuntary," Justice Brown said, must attach to the inception of the service. It would be as culpable that soldiers should desert on the eve of

battle as that seamen should decline to obey orders issued to them at sea.

Justice Harlan dissented, on the ground that the arrest was in violation of the thirteenth amendment, in that it was an attempt to enforce involuntary servitude. He declared that it was an attempt to interfere with the rights of freemen to compel them to serve on a private vessel contrary to their wishes.

He objected to any appeal to English precedents in this case, saying that the two governments were so entirely different as to render such reference unavailing. In England, he said, Parliament is the paramount authority and that body could wipe out the Magna Charta in a law of ten lines, while the power of Congress was limited by the constitution.

Justice Harlan dwelt upon the fact that the Aragon was a private vessel and that Robertson and his companions were taken off it to be placed under arrest because they had asserted their rights as freemen and refused to work.

This he did not think should be regarded in the light of a criminal offense. There was, he contended, a difference between imposing conditions like these on men like soldiers, in the public service, and upon men in private employ, even though they be sailors.

He differed radically from the court in holding that the action of Robertson and the other sailors was similar to that of a soldier who should desert in battle, and said that the effort to compel them by the aid of the government to observe the terms of a contract and continue their labor was more like an overseer standing over a slave to compel the performance of menial service.

If such a law could be enforced in international commerce, why not in interstate commerce? If men could be compelled to serve on ocean-going steamers, why not on the river boats of the interior? Why was it more reasonable to arrest a seaman for refusing to labor than a house servant who made a similar refusal? A law providing such a penalty in the latter event would shock every one, yet the grounds for it would be as solid as for the law under which this proceeding had occurred. He thought the law unconstitutional and the arrest of the men contrary to the spirit of the age.

NEXT SEASON'S OUTLOOK.

There is certainly nothing very promising in freight rates for the opening of navigation, although we may say that vessel property will turn in a fair interest on the investment.

It has been estimated that only about 12,000,000 bushels of grain will be shipped at Duluth from the opening of navigation up till September next when the new grain crop will begin to arrive. We would not advocate a stampede to charter on the present outlook though it is possible that individual vessel owners are playing their cards to win, even as things are now, but there has been a scare through the Rockefeller-Carnegie deal, and it would be as well to hold off for a while.

The Bessemer, Minnesota and American Steel Barge Co. will of course cut quite a figure in the movement of ore and they may force the 80-cent deal through, but it is not quite certain that even this large amount of tonnage can take care of the ore to come forward, as by May 1 the docks are likely to be pretty well cleared up of ore.

There can be little doing in grain at the opening and all rates will surely be low. Notwithstanding this, owners ought not to hurry on time charters, or if they do, the freight market will become so depressed as to render fair living rates an impossible point to arrive at.

Large tonnage will be in more demand for bulk cargoes this season than ever before, but the moderate sized vessels will be well employed in seeking the shoaler harbors and wherever possible chartering on time for that trade.

So it appears that Senators Frye and Hale consider that sailors are not yet tired of "kissing the gunner's daughter," which in shore parlance means being tied up at the grating and given the cat-o'-nine-tails. Well! all we can say for such deplorably ignorant and heartless senators or wretches is, that they should be hoisted with their own petard, and for a slight relaxation of duty or conscience be whipped over the bare finger with a split rope yarn. Nay, we would even go further and advocate these two worthies being made to swallow a little of "the soup" themselves, to see how they might enjoy a swish of the lash on their dishonorable bare backs. Senator Hale perhaps may in a measure be pardoned, for "he knows not

what he doeth" in this connection, but Frye should be fried and done brown, for he does or ought to know where he is at. Out upon such hounds of civilization! Brute force creates brutal instincts in the human race; there are other methods.

The average sailor has but a slight regard for a soldier; how this feeling or intuition, if such it may be called, is engendered, they can't tell, but the condition or state of affairs exists in the over-sea merchant service, even today, and though it is not so marked among the working element of the lakes, still the terms lubber and soldier are considered about synonymous. An article contained in Harper's Weekly, Jan. 16, by Lieut.-Comdr. J. D. Jerrold Kelley, U. S. N., clearly explains the origin and reason of this strange antipathy as between sailors and marines in the naval service and we have no doubt but that the blue-jackets imparted their ill-feeling towards marines to their brethren in the merchant service. Although on the other hand the line is also drawn between naval and merchant seamen.

A GOOD PIECE OF MECHANISM.

There is no doubt that shipowners on the lakes, and for that matter, builders also, seem to favor the "Providence" patent steam capstan windlass. There are now about forty vessels in course of construction at lake ports, nearly all of which, and more markedly the large tonnage ones, call for the above make of windlass. The American Ship Windlass Co. have been in the field since the schooner days. They have upheld their reputation in every way, that is, from a mechanical and businesslike standpoint, to the satisfaction of their patrons. Consequently, it is but just that they should reap the harvest which they are now doing. The manufacturers of this well-known mechanism, who, by the way, have been liberal and steady patrons of The Record for many years, endeavor to keep ahead of all improvements, so that the "Providence" windlass is now known as the best afloat. The present modern style of windlass is simple in its construction, though thoroughly supported at all points where the strains come, something more than can be said of some other types of windlass. Another feature which we have recently noticed is the new locking gear, lately introduced, and which must certainly commend itself to all users of ground tackle.

A NEW ROUTE TO THE COAST.

The arrangement of a new trunk line from St. Paul, Minneapolis and Duluth to the Atlantic seaboard at Norfolk, Va., means a great deal for the future traffic of the Wisconsin Central and Flint & Pere Marquette railroads and the across-the-lake steamer line between Manitowoc and Ludington. This is fully illustrated by the existing condition of things. While there has been a fair movement of flour eastward during the winter thus far the Wisconsin Central and Flint & Pere Marquette route has handled only a small proportion of the traffic for the reason that the shipments are largely foreign export on contracts at low through rates made by the Big Four and Grand Trunk lines. Flour thus handled by the Grand Trunk railway goes to Portland, Me., and is carried across the Atlantic by Allan line steamships, while the Big Four makes the haul to Newport News, Va., and delivers the product to Atlantic liners at that point. Under existing conditions the Grand Trunk and Big Four people control these foreign shipments to the exclusion of other routes, and the managers and agents of the lines suffering a loss of business in consequence can do little else than stand idly by and grumble. The importance of the new seaboard connection arranged by the Wisconsin Central, Flint & Pere Marquette and the Columbus, Hocking Valley & Toledo railway companies will therefore be fully appreciated by those who up to the present time have not fully understood the situation and have wondered why lines hitherto well patronized should suffer such a heavy loss of flour traffic as is credited to the Flint & Pere Marquette the present season.

SHIPBUILDING IN GLASGOW.

Under date of December 14, 1896, Consul Morse transmits the following statistics covering shipbuilding on the Clyde: I have the honor to report that shipbuilding on the Clyde has increased over last year. Sailing vessels built, 97, of 46,814 tons; steam vessels built, 280, of 374,027 tons; total tonnage in 1896, 420,841; total tonnage in 1895, 360,152.

DREDGERS' ORGANIZATION.

The movement of dredging contractors on the lakes looking to organization, for the purpose of getting better prices, which was inaugurated at Indianapolis not long since, will be continued in Chicago on February 2. There has been a good deal of cutting and slashing of prices for dredging among the dredgers, and an effort will be made to come to an understanding regarding prices.

VOLUNTARY AGREEMENT OF SAILORS.

The United States supreme court has affirmed the judgment of the California district court in the case of five seamen arrested at San Francisco for refusing to obey orders of the master of the Aragon after having entered into articles to make a voyage to Valparaiso. The constitutionality of the law empowering justices of the peace to arrest deserting seamen was involved and also the question whether their arrest violated the "involuntary servitude" amendment to the federal constitution. Both points were decided against the sailors.

STURGEON BAY M. E. B. A.

At the regular meeting of the Marine Engineers' Beneficial Association, No. 88, of this port, held on the evening of January 5th at their hall, the following officers were elected for the ensuing year: President, Olef Sanders; vice-president, Joel Ashby; past president, W. O. Helmholtz; treasurer, Ashley Cofrin; corresponding secretary, C. O. Chapman; financial secretary, Henry Devine; recording secretary, F. A. Ives; chaplain, Henry Devine; conductor, Henry Dummann; doorkeeper, Ashley Cofrin; trustees, W. O. Helmholtz, Olef Sanders and Joel Ashby; national representative, F. A. Ives.

STEAM COMMUNICATION BETWEEN BALIZE AND NEW YORK.

Under date of December 3, 1896, Consul Morlan, of Belize, British Honduras, reports that the colonial government has made a contract with the Atlas Line to run fortnightly steamers between New York and Belize, calling at Jamaica each way. The government, in lieu of subsidy, remits light and harbor dues. It is hoped by this means to encourage the immigration of laborers to develop the agricultural resources of the colony. The first steamer of a direct German line from Hamburg has arrived, bringing considerable cargo. If this line succeeds, it will mean considerable increase in the importation of goods, principally at the expense of the trade with Great Britain.

ERIE CANAL TRAFFIC.

Erastus Wiman, representing the Consolidated Canal and Lake Company, obtained a lease from New York Board of Docks, at a special meeting held last week. Mr. Wiman explained that his company expected to bring into New York annually 1,000,000 barrels of flour via the Erie canal. To do this it would be necessary for the company to have dockage and storage. Mr. Wiman finally secured the lease of the pier at the canal basin at the foot of West Fifty-fourth street, at a rental of \$3,500 annually for ten years. The company proposes to put up a \$500,000 shed over the pier. The company's request for 750 feet of dockage at Sherman's Inlet, opposite Morris dock and near Fort St. George, will also be considered.

A PROMINENT TOLEDO MARINE MAN.

Capt. L. S. Sullivan recently elected to office in the Lake Carriers' Association made his first venture in the purchase of marine property in 1882, when he invested in the pretty little steamer Sallie. He next purchased the tug Rooney, and since then has owned part or the whole of about 15 craft. He is now interested in the tugs Schenck, Andrews, Bickhead, and Rooney, steambarge Rust, and schooners Borneo, Schuette, and Badger. He has, for a number of years past, managed the offices of the Toledo Tug Line, and has also carried on the business of vessel brokerage. Mr. Sullivan has worked his way up the ladder of business until he now holds a prominent place, and his election as an officer of the Lake Carriers' Association was a well deserved compliment.

RECEIPTS OF GRAIN AT BUFFALO.

Mr. Julius S. Smith, weighmaster for the Buffalo Merchant Exchange, has made his report for the year 1896. It shows: Receipts of wheat, 54,411,207 bushels; corn, 47,811,010; oats, 40,107,499; rye, 4,404,354; barley, 16,697,744, and flaxseed, 9,042,850 bushels, or a total of 172,474,664 bushels.

COAL HANDLING MACHINERY.

We have frequently pointed out in these columns the economy of handling, that is, loading or discharging, bulk cargoes, such as iron ore, coal, and grain, rapidly and without undue detention to vessel.

Among the various methods of handling coal at the several lake ports attention may be directed to the equipment furnished by the Coal Handling Machinery Co., of Chicago to the Crescent Coal and Mining Co., of that port. The latter firm have just finished a very busy season, in fact it is considered a record breaker in coal discharging circles. The machinery with which the docks are equipped, and each specialty is manufactured by the Coal Handling Machinery Co., consists of the clam-shell type of bucket, engines and steam scraper.

Crescent Coal and Mining Co.—North Dock.

EQUIPPED WITH THREE DERRICKS.

1896.	BOATS.	Net Tons.	Tons per Hour.	Cost per Ton.	Total Cost.
May 13.	Str. Sibley	1741	75 3-4	c 7 4-10	\$103.07
" 15.	" Ketchum	1583	100	4 8-10	78.09
" 16.	" Owen	1526	117	3 6 10	55.76
" 23.	" Ed. Smith	1122	112	4	45.47
" 30.	" James	1580	62	4 5 10	71.10
June 5.	" Hale	1333	102 1-2	5 7-10	76.97
" 11.	" Stone	2240	99 1-2	5 7-10	129.92
" 12.	" Ed. Smith	1103	122 1-2	4 3 10	47.49
" 14.	" Chisholm	2166	83	6	120.09
" 20.	" Raleigh	1713	108 4-5	3 8 10	66.17
" 25.	" Owens	1533	76 1-2	6 6-10	101.45
July 6.	" Norwalk	1820	86	4 8 0	90.22
" 8.	" Marven	1217	101 1-2	4 3-10	52.50
" 12.	" Prentice	832	87 1-2	5 3 10	44.67
" 30.	" Oscoda	800	66 2-3	6 3 10	51.00
Aug 5.	" Denver	1358	97	4	54.66
" 11.	" Marshall	1200	92	5 6-10	66.69
" 12.	" Pueblo	1224	101	4 7-10	67.86
" 15.	" Majestic	2485	93 3-4	4 8 10	119.70
" 19.	" Vance	2335	115	4	94.37
" 22.	" Marquette	1800	94	5 4 10	97.37
" 23.	" Farwell	1450	95 3-4	5 3 10	77.31
" 24.	" Fillmore	816	81 3-5	8	65.16
" 27.	" Flower	2030	67	6 4 10	131.10
Sept 2.	" Smith	1167	89 3-4	5 8-10	66.95
" 6.	" New Orleans	1948	97 2-5	5	97.56
" 18.	" Rugee	1618	67 1-2	6 5 10	105.45
" 22.	" Ashland	1870	98 1-2	4 6 10	88.55
Oct 2.	" Topeka	1421	98	4 2 10	59.71
" 13.	" Churchill	1149	104 1-2	4 3-10	49.86
Nov 4.	" Fitzgerald	2130	87	5 1 10	109.56
" 11.	" Oceanica	1610	48 4-10	10	171.70
" 19.	" Morley	1422	109	4 9 10	67.80
" 25.	" Hutchinson	1195	79 2-3	5 5-10	66.00
" 28.	" Servia	2040	97 1-2	4 2 10	87.81
Dec 3.	" Cranage	2700	71	7	190.15
" 6.	" Palmer	2693	89 3-4	4 8-10	134.61
" 9.	" Caledonia	2450	106 1-2	4 3 10	106.56
" 12.	" Elphicke	2430	93 1-2	5	123.45
" 16.	" Mills	2088	77 1-3	6	128.25
" 21.	" Moore	2531	81 2-3	5 9-10	151.40

Total, 41 Boats.

South Dock.

EQUIPPED WITH TWO DERRICKS.

1896.	BOATS.	Net Tons.	Tons per Hour.	Cost per Ton.	Total Cost.
May 13.	Str. Majestic	2435.16	76	c 7 5-10	\$184.74
" 23.	" Marvin	1188	74 2-3	6 5 10	76.71
June 2.	" Adriatic	1583	88	5 2 10	82.80
" 4.	" Averill	1319	65 9-10	4 6 10	52.84
" 10.	" Marvin	1200	100	4 6-10	56.35
" 12.	" Hodge	730	56	9 7 10	70.71
" 18.	" Omaha	1349.01	79	5 3 10	71.74
" 22.	" Denver	1302	81 6-10	5 8-10	76.50
" 24.	" Ketchum	1665.09	79 6-10	6 2 10	103.24
July 6.	" Smith	1097.12	91 4-10	5 6-10	61.65
" 29.	" Norwalk	1486.05	93	5 2-10	78.15
" 31.	" Green	940.16	85	5 5-10	51.16
Aug 5.	" Rugee	1545.12	57	8 5-10	131.71
" 15.	" Moore	2608.25	90	6 7-10	179.16
" 16.	" Norwalk	1499.15	94	5 5 10	82.71
" 17.	" Omaha	1471.18	101	5 7-10	80.46
" 21.	" Baltic	1167.01	83	7 8 10	92.16
Sept 19.	" Mecosta	2324	86	6 3-10	145.71
" 23.	" Canisteo	985.12	76	6 2-10	61.26
Oct 1.	" Niko	1186.02	99	5	59.12
" 29.	" Minch	1153.12	97 6-10	6 2 10	153.01
Nov 4.	" Forbes	1348.07	79	7	91.81
" 5.	" Hill	1429.07	95	6 5 10	93.41
" 18.	" Mecosta	2242.15	98	6 3-10	141.66
" 24.	" Germanic	1410.11	83	7	98.16
" 27.	" Roby	2508	96	5 8-10	147.84
Dec 3.	" Tampa	2608	98 1/4	7 9 10	205.80
" 9.	" Parnell	2104	110	4 4-10	93.36

Total, 28 Boats

GEO. C. NOTTER, STEVEDORE.

The "clam shells" are operated by 10x12 double cylinder and double drum high speed hoisting engines and the scrapers by a 14x20 engine which also drives the line shaft and drums. The coal is hoisted from vessel to hopper on derrick and then spouted into cars of two tons capacity which are operated by an automatic cable road and the coal is then distributed to any required position. By this means of rapid handling it is stated that the cost of unloading coal has been reduced to about one-third of the former cost, or old style of hand shoveling, as will be seen by the accompanying table kindly furnished us by the coal consignees at Chicago with a list of the cargoes discharged during the season just closed.

For Sale

The Steamer Allie E. Shipman.

Forty gross tons. Dimensions—61 feet keel, 14 ft. 4 in. beam and 5 ft. 6 in. depth of hold, 12 square high-pressure engine, Scotch type boiler, allowed 125 pounds pressure. Boat built at Manitowoc in 1912. She is housed and licensed to carry 45 regular passengers, and has an excursion permit to carry 125 passengers.

Will sell or trade this boat for something larger. Now lying at Escanaba, Mich. For further particulars apply to

J. B. MORAN, MGR.
Escanaba & Gladstone Transp. Co.
ESCANABA, MICH.

F. W. WHEELER & COMPANY,

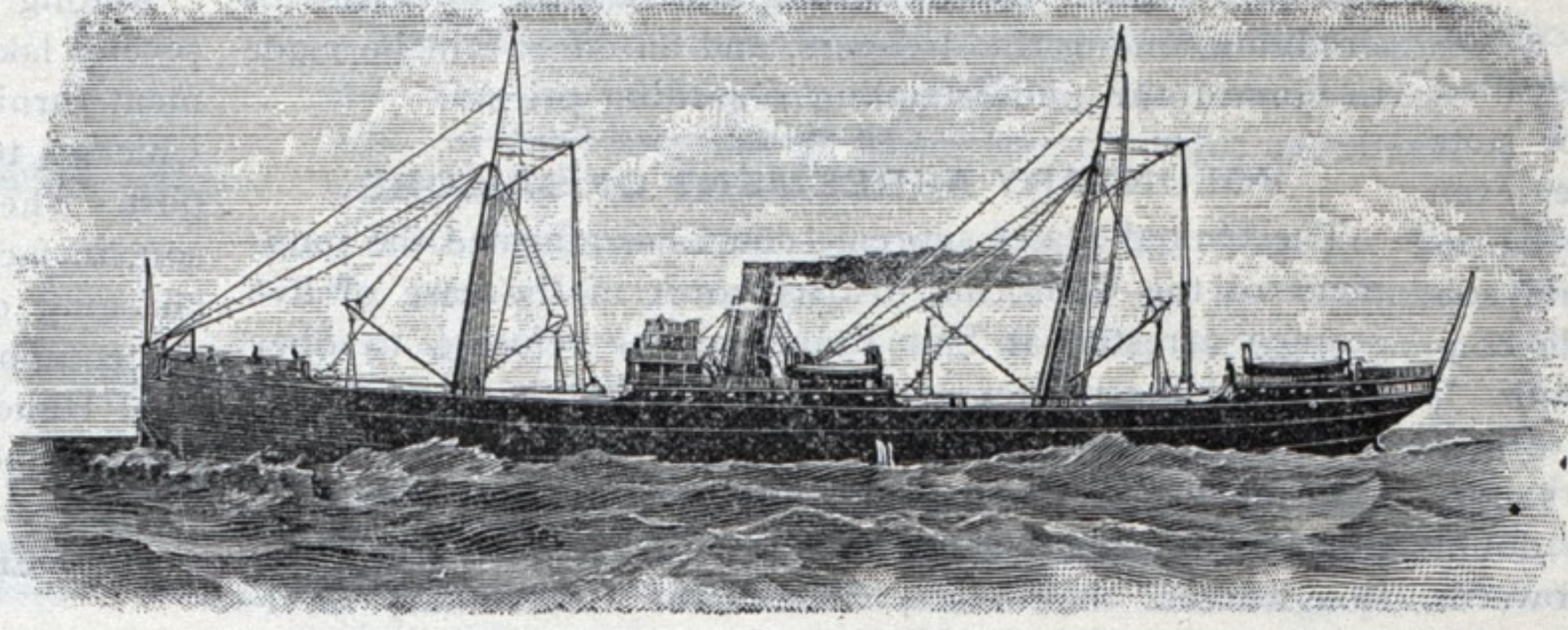
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MATCHLESS
WATER-PROOF CANVAS



The best in the market for hatch covers, is stronger, lighter, and more durable than any water-proof goods yet produced. It is made of a twisted thread of pure flax, which renders it very strong. It will not crack like cotton goods, which is a great advantage.

EDWARD A. BUNKER,

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Rainbow Packing



Once Tried, Always Used.
Will hold 400 lbs. Steam.

16-24 Woodward Ave.,
DETROIT, MICH.

THE PEERLESS Spiral Piston and Valve Rod Packing.

Patented and manufactured exclusively by
PEERLESS RUBBER MFG. CO.,
16 Warren St., New York.

193-195 Bank St.,
CLEVELAND, O.

202-210 S. Water St.,
CHICAGO, ILL.

A STEADY PLATFORM AT SEA.

Written for The Marine Record.

By W. E. Redway, Buffalo, N. Y.
CHAPTER II.

The Bessemer was the joint production of Sir E. I. Reed, naval architect and ex-chief constructor of the British navy and Sir Henry Bessemer, the celebrated engineer, two eminent men, each in the front rank of his profession. This vessel was designed solely for great speed and to be free from rolling and pitching proclivities for the route between England and France, across the Straits of Dover, one of the roughest bits of navigation around the coast in bad weather. She had a long hull with fine lines, having both ends for a distance of 70 or 80 ft. constructed with extremely low freeboard, and amidships a lofty citadel built as a superstructure with pointed ends in which was placed a saloon 70 feet long suspended something like the card of a mariner's compass, operated by hydraulic machinery under the control of one man, whose duty it was to always keep the cabin floor horizontal.

To assist in keeping the hull proper from rolling, extremely large bilge keels were fitted on each bilge. The propelling machinery consisted of two sets of paddle-wheel engines, one astern of the other. The data obtained from her performances are as follows:

1. The low ends which became entirely submerged when passing through heavy seas, effectually prevented pitching, but the impact of the waves against the citadel after passing over the ends with the vessel going fast was so severe as to be dangerous.
2. The period of rolling was considerably lengthened owing to the large bilge keels.
3. The after set of paddle-wheels were of small efficiency owing to the wake of the foremost wheels already traveling at speed when it reached the after ones.
4. The suspended cabin proved to be impracticable, owing to the difficulty of instantaneously controlling its movements by means of the hydraulic apparatus.

The Castalia was formed of two halves of a vessel placed sufficiently far apart to allow of one paddle-wheel working in the space between them, the two portions of the hull being rigidly connected by a heavy deck framing of iron girders. This was a remarkably steady vessel, but she was exceedingly unmanageable and very hard to steer. After a thorough trial she was removed from the station and used as a floating smallpox hospital in the Thames.

The "Calais-Canores" was constructed on similar prin-

ciples to the "Castalia," but with two separate and distinct hulls instead of two halves, and she accomplished what was claimed for her in a fairly successful manner.

Next in order comes the "Livadia," a most interesting vessel with proportions so contrary to all preconceived ideas of what a ship should be, that her performances upon the measured mile were somewhat of a revelation to the shipbuilding world. Admiral Popoff claimed that in building this vessel the Russian Government was the liberator of science from its prejudices. The Livadia was 230 feet long, 153 feet beam and 6½ draft with a displacement of about 4,000 tons. By model experiments it was calculated that she could be driven to 14 knots speed, and as a matter of fact, she made 15.864 knots on the measured mile.

The performance of this vessel as regards speed was a singularly convincing confirmation of the remarkable result attained by the late Mr. Wm. Froude, when he proved that "by increasing the beam of certain vessels so as to make the proportion of length to beam 3¼ instead of 4¼, and proportionately finning their ends, a higher speed would be attained than by shaping them in the generally accepted form, and further supports the view, that by the use of proportions and forms not yet fully understood, the relative breadth may be indefinitely increased, with the object of securing steadiness and armour carrying power without at the same time so greatly increasing the propulsive resistance as to neutralize to any serious extent the undoubted advantages with which breadth of beam is associated."

With regard to the "Livadia's" behavior in a sea-way a full description of her voyage across the Bay of Biscay in a heavy gale appeared in the papers at the time of her voyage to Russia, when it was stated that she rolled less than five degrees. The principle of her construction as clearly put by a periodical describing her was: "that instead of being inclined by a head wave rising on end and expending its force entirely in one direction, she divided the wave with the power of her cross section so that the water which rolled upon her side would exert a pressure downwards equal to that which tended to lift her upward in the old form of hull."

The "Livadia" was shown to be a failure, owing to structural weakness and faulty design of details, but as an illustration of the principles involved in obtaining a steady platform at sea and that beam "per se" is no ban to speed she was a complete success.

The U. S. Monitor "Maintonomoh" is so well known that a detailed description of her would be superfluous. It is sufficient to say that apart from all questions of sea-

worthiness her steadiness is such that according to reliable reports a glass of water will remain upon her cabin table without being spilt or upset during a heavy gale and rough sea. The peculiarities of her design are extremely low freeboard and considerable beam.

The new U. S. Ram "Katahdin," constructed at the Bath Iron Works, Maine, is the latest development of some of the principles involved in the design of vessels of the "Livadia" and "Maintonomoh" type and will doubtless illustrate still further the correctness of the original idea.

As to the McDougall whalebacks, it is not possible, owing to lack of available data to come to a decision with regard to their pitching and rolling (and in no other sense are they useful for comparison in this connection), but it has been stated that on the arrival of the "C. W. Wetmore" in Liverpool with grain a few years ago, the footsteps of the crew were still visible on top of the cargo when the hatches were opened. This would tend to show that such a type of vessel must be singularly free from pitching and rolling proclivities, which might reasonably be influenced owing to the form of her cross-sections above water, which by rapidly tumbling home from the water line, when the vessel is loaded with a homogeneously cargo, rapidly shorten the length of the righting lever and cause the vessel to roll easily and slowly.

The "Turret" type of cargo steamers constructed after the same idea, in cross-section as the whalebacks, according to authentic public reports, give a capital account of themselves as good sea boats.

Lastly, with reference to the French ironclad ram "Devastation," an ingenious combination of "Katahdin" whaleback, "Livadia" and "Turret," it is well known that during the old privateering days of last century and the early part of the present one, the fastest, handsomest and staunchest boats owned by the British were those captured from the French and manned by their captors, and it is an admitted fact today that French designers are second to none in the world for their high scientific attainments. The graceful proportions and magnificent behavior of some of their latest productions amply testify to the truth of this proposition. So with regard to their casemated barquette ship "Devastation," it can be seen at a glance that with her sharply receding topsides and ends, the French admiralty have produced a vessel which cannot by any possibility be other than a remarkably steady ship at sea whilst her gracefully rounded contour and easy lines make her exceedingly attractive to an educated eye.

(To be Continued.)

ANOTHER LAKE INDUSTRY.

The plan for the consolidation of the Pittsburgh, Shenango & Lake Erie and Butler & Pittsburgh under the name of the Pittsburgh, Bessemer & Lake Erie Railroad Company has been completed. The capital stock of the new company will be \$10,000,000 in \$50 shares, and will retire, dollar for dollar, the \$5,200,000 stock of the Butler & Pittsburgh (\$2,400,000 new consols being also given as part consideration) and the \$4,800,000 stock of the Pittsburgh, Shenango & Lake Erie. All debts of the old companies will be assumed and a new consolidated mortgage to secure \$10,000,000 of 5 per cent 50-year gold bonds will be created, covering all the railroad property, rights and franchises of the consolidated company, including the agreement with the Carnegie Steel Company, limited, and the Union Railroad Company. Of the new bonds, \$4,800,000 will be reserved to retire at or before maturity a like amount of bonds outstanding on the Pittsburgh, Shenango & Lake Erie, and \$2,400,000, with interest accruing from April 1, 1897, will be issued in part payment to the stockholders of the Butler & Pittsburgh. The remainder of the new loan will be applicable to the "corporate purposes" of the new company in the manner to be provided in the new mortgage.

Directors—The directors of the new company will be: Andrew Carnegie, New York; J. Edward Simmons, New York; Samuel B. Dick, Meadville, Pa.; Arthur C. Huidekoper, Meadville, Pa.; John Dick, Meadville, Pa.; Henry C. Frick, Pittsburgh, Pa.; John G. A. Leishman, Pittsburgh, Pa.; James H. Reed, Pittsburgh, Pa.; Jabez T. Odell, Pittsburgh, Pa.; Thomas H. Given, Pittsburgh, Pa.; Andrew W. Mellon, Pittsburgh, Pa.; Edwin S. Mills, Cleveland, O.; Thomas H. Wells, Youngstown, O.

The new road runs from Edgar Thomson Steel works to Conneaut, O. The line from Butler to Pittsburgh will be completed by August. Contracts will insure a tonnage of 4,000,000 tons annually.

PISCATORIAL.

The Chicago Inter-Ocean don't think much of the Ohio fish laws. It says: President George Falloon, of the Ohio fish and game commission, says that the supply of fish in Lake Erie will be exhausted in two or three years unless the existing laws regulating the catch are quickly

revised and thoroughly enforced. He might have added that this will be wholly due to the stupidity of Ohio statesmen. Canada has protected the fish in Lake Erie, while Ohio has done nothing but slaughter them. She has allowed the pound net, the gill net and the seine so thick in the Lake Erie waters as to make it well nigh impossible for fish to get to and from their spawning grounds. Thirty years ago Lake Erie excelled all the lakes on the continent for the variety and excellence of its fish. A man with rod and line could capture 100 black bass in a day, weighing from three to six pounds, where today he could not catch half a dozen. It is simply nonsense to stock rivers and lakes with fish until protection is guaranteed for the fish during the spawning season.

VISIBLE SUPPLY OF GRAIN.

As compiled for The Marine Record by George F. Stone, Secretary Chicago Board of Trade, January 23, 1897.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Albany.....		50,000	100,000		10,000
Baltimore.....	325,000	2,252,000	490,000	347,000	
Boston.....	1,389,000	805,000	193,000	1,000	16,000
Buffalo.....	1,882,000	124,000	283,000	139,000	1,283,000
" afloat.....	334,000	225,000	261,000	95,000	65,000
Chicago.....	12,484,000	6,388,000	5,133,000	1,383,000	184,000
" afloat.....	200,000	1,180,000	351,000		
Cincinnati.....	4,000	3,000	11,000	7,000	134,000
Detroit.....	320,000	114,000	13,000	40,000	31,000
" afloat.....					
Duluth and Superior.....	3,363,000	11,000	1,321,000	547,000	375,000
" afloat.....	402,000			53,000	
Indianapolis.....	142,000	52,000			
Kansas City.....	472,000	120,000	201,000	18,000	
Milwaukee.....	330,000	3,000	11,000	379,000	91,000
" afloat.....					95,000
Minneapolis.....	18,763,000	23,000	765,000	59,000	82,000
Montreal.....	446,000	25,000	180,000	50,000	42,000
New York.....	5,097,000	5,132,000	2,434,000	336,000	676,000
" afloat.....	1,408,000	481,000	154,000	39,000	313,000
Oswego.....	35,000				75,000
Peoria.....	166,000	341,000	252,000	24,000	55,000
Philadelphia.....	606,000	1,140,000	124,000		
St. Louis.....	1,795,000	2,550,000	326,000	34,000	9,000
" afloat.....					
Toledo.....	1,116,000	572,000	486,000	124,000	
" afloat.....	216,000		58,000		66,000
Toronto.....					
On Canal.....					
On Lakes.....					
On Mississippi.....		124,000	6,000		
Grand Total.....	51,295,000	21,718,000	13,153,000	3,675,000	3,602,000
Corresponding Date 1896.....	67,523,000	10,431,000	6,253,000	1,549,000	3,135,000

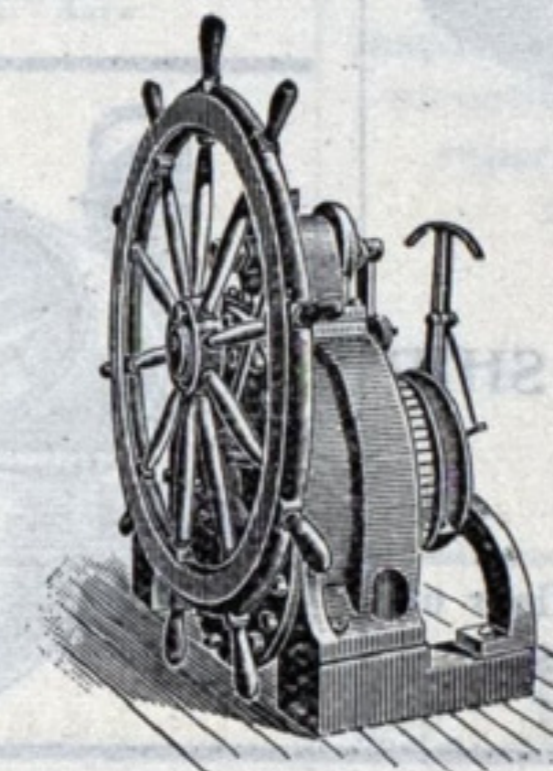
LITERARY NOTES.

Messrs. Harper & Brothers' announcements of new publications during February and March include the following books: Dr. Fridtjof Nansen's "Farthest North"; Being the Narrative of the Voyage of the Fram, 1893-1896, and the Fifteen Months' Sledge Expedition by Dr. Nansen and Lieut. Johansen, with an appendix by Otto Severdrup, an etched portrait of the author, about one hundred and twenty full-page and numerous smaller illustrations, sixteen colored plates in fac-simile from Dr. Nansen's own sketches, and several photogravures and maps.

W. Clark Russell will contribute to Harper's Round Table, published January 26, a paper entitled "Boys at Sea." In the same issue Cyrus C. Adams, the authority on Africa, will have a paper entitled "The Fighting Savage," which enters into the semi-barbarous methods of meeting the civilized armies of Europe in warfare.

Among other bills passed by the House was the Senate bill providing that vessels of over fifteen tons burden, propelled by gas, fluid, naphtha or electric motors, shall be subject to the laws of the United States with regard to steam vessels. They must carry a captain and an engineer. As all naphtha launches are under 15 tons register this bill will not affect the builders of such boats.

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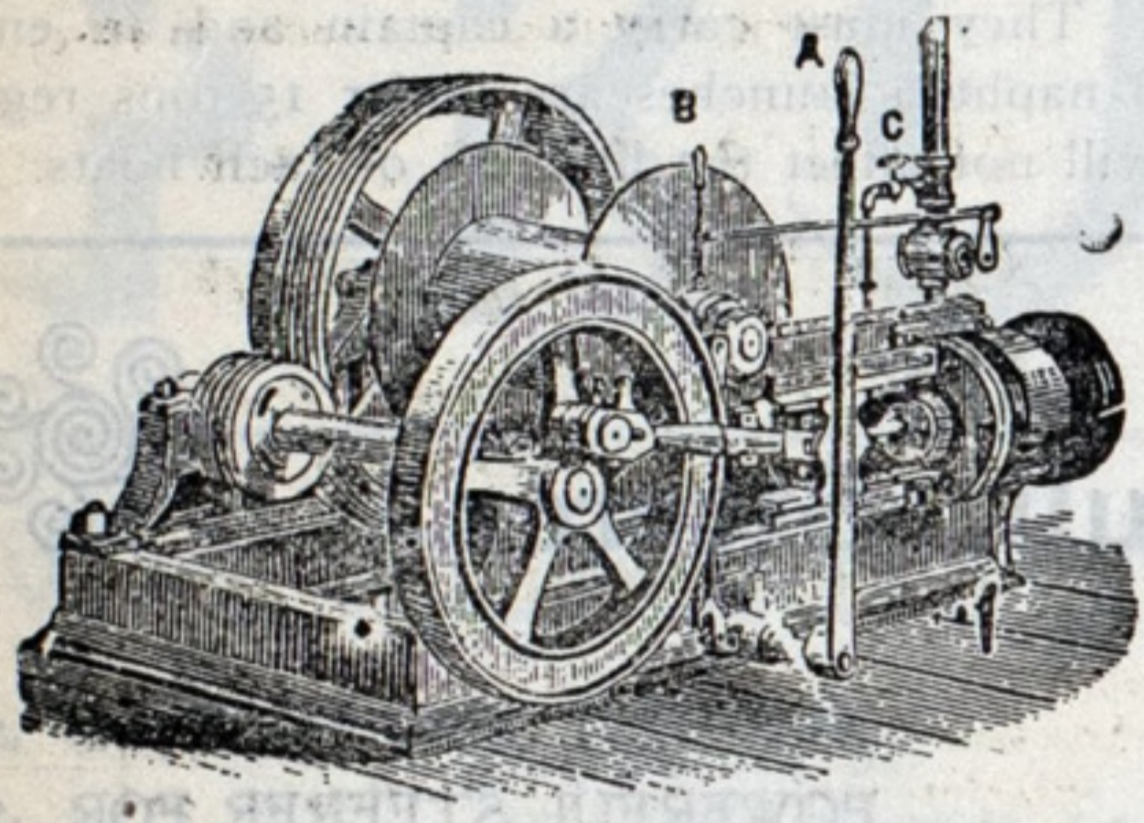
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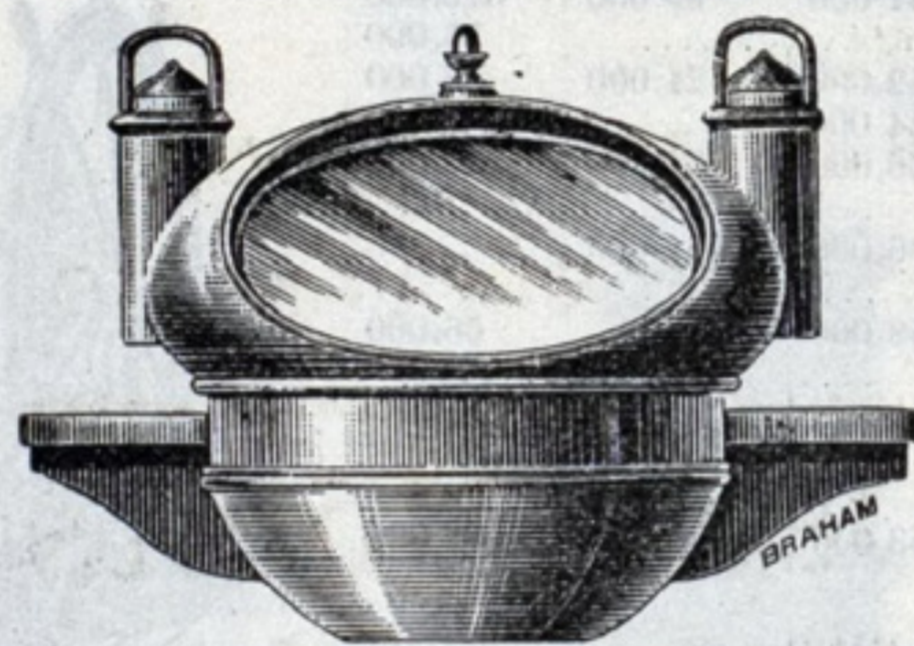
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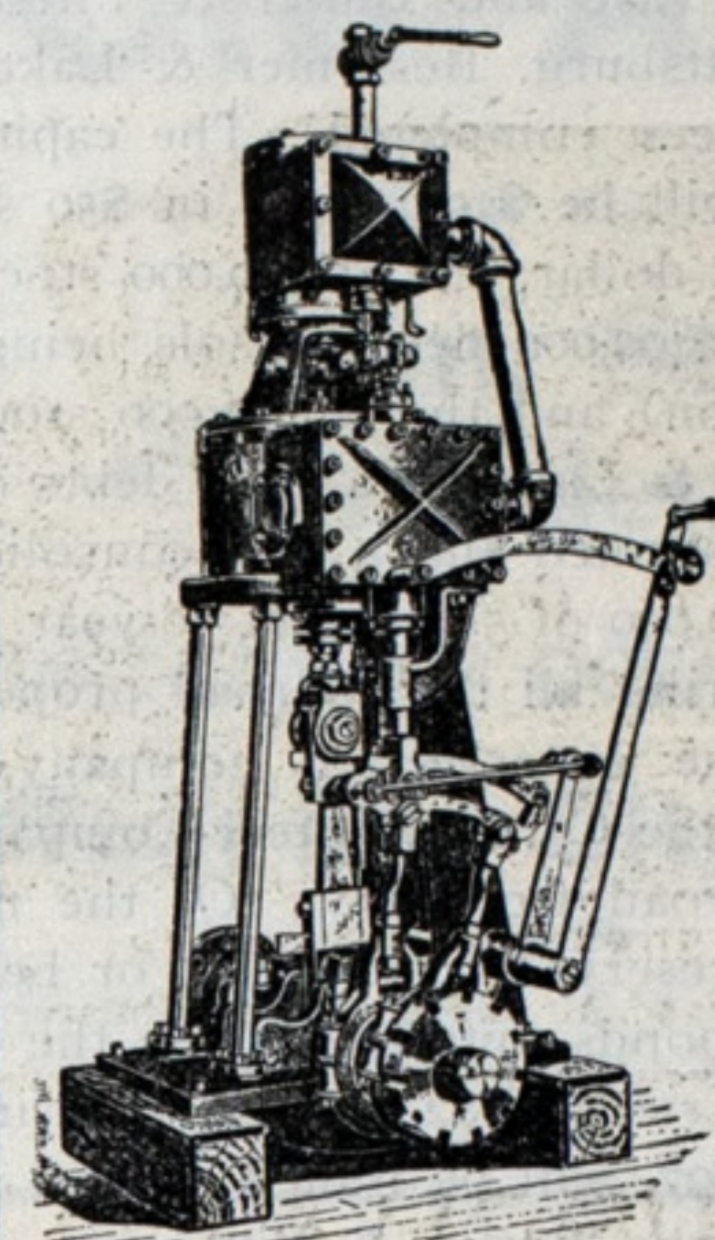
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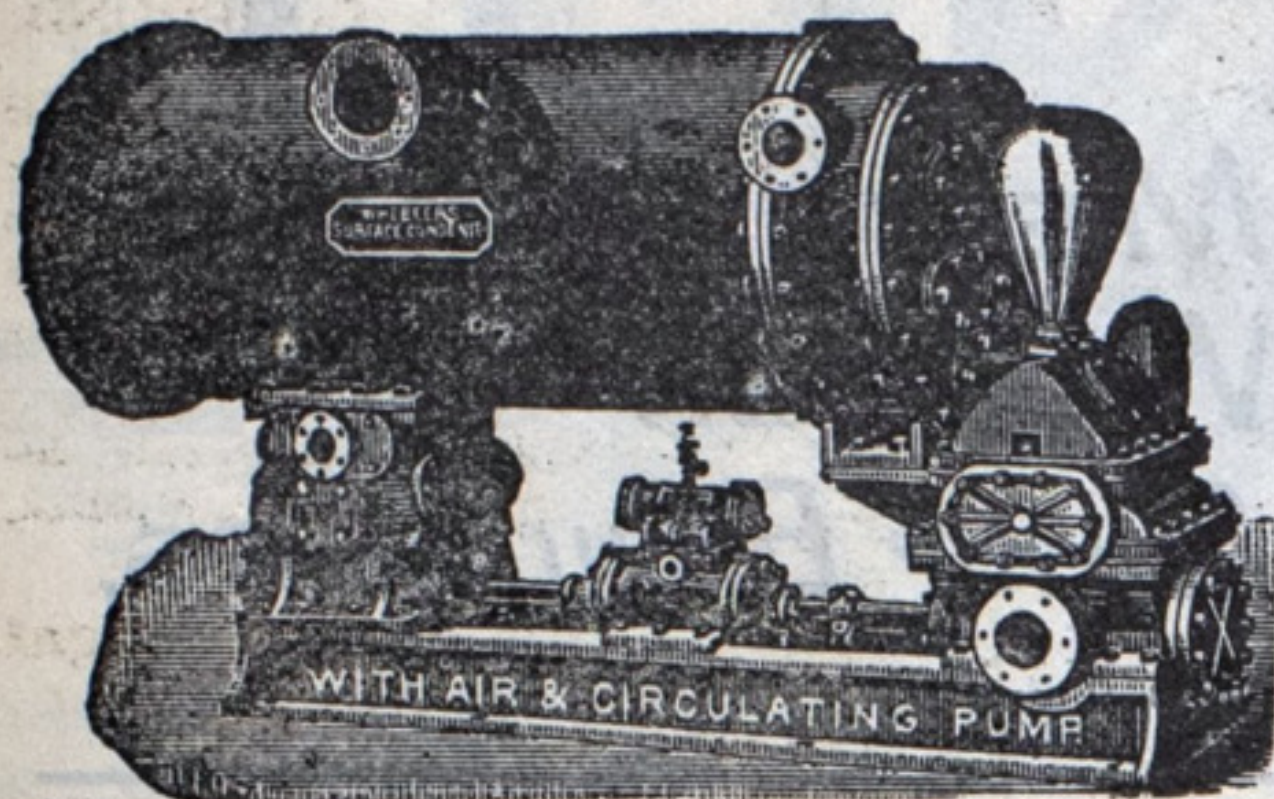
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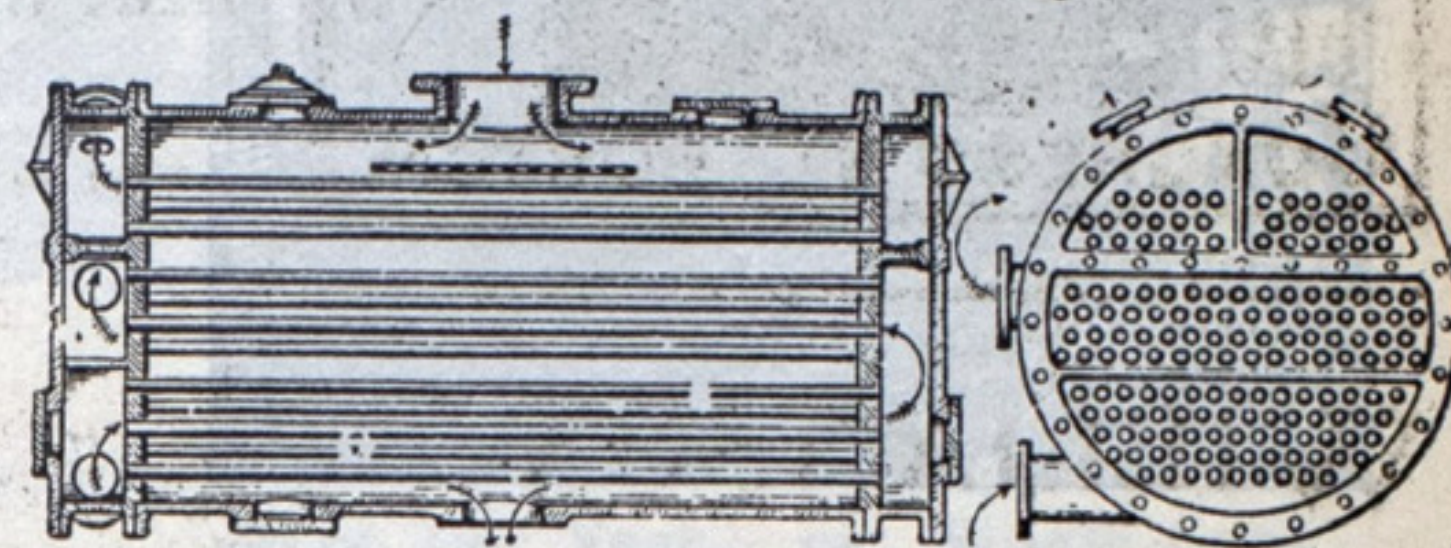
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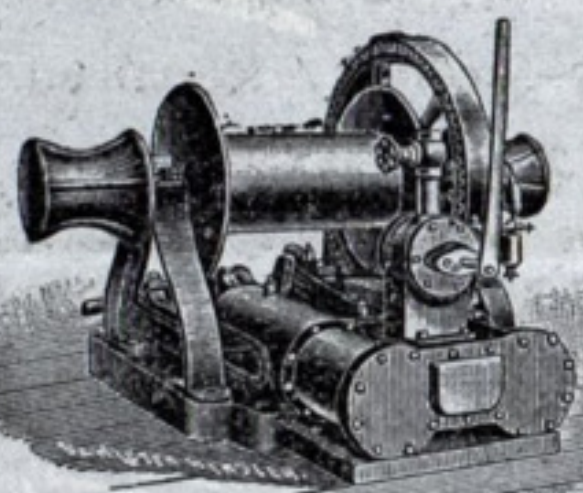
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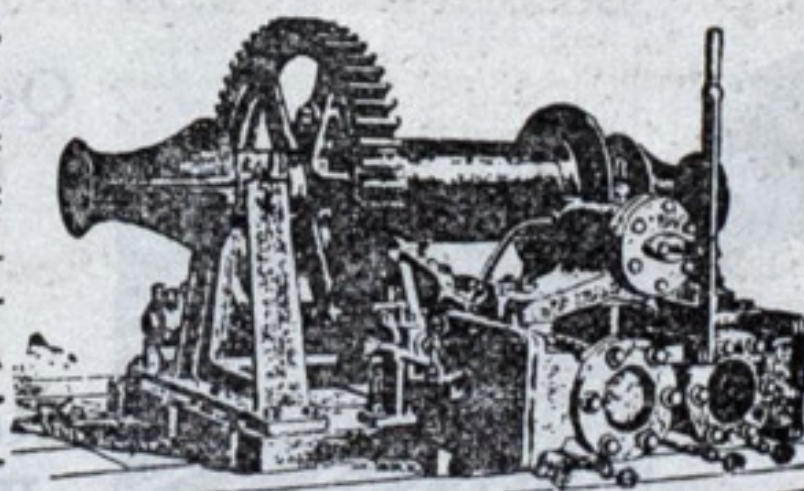
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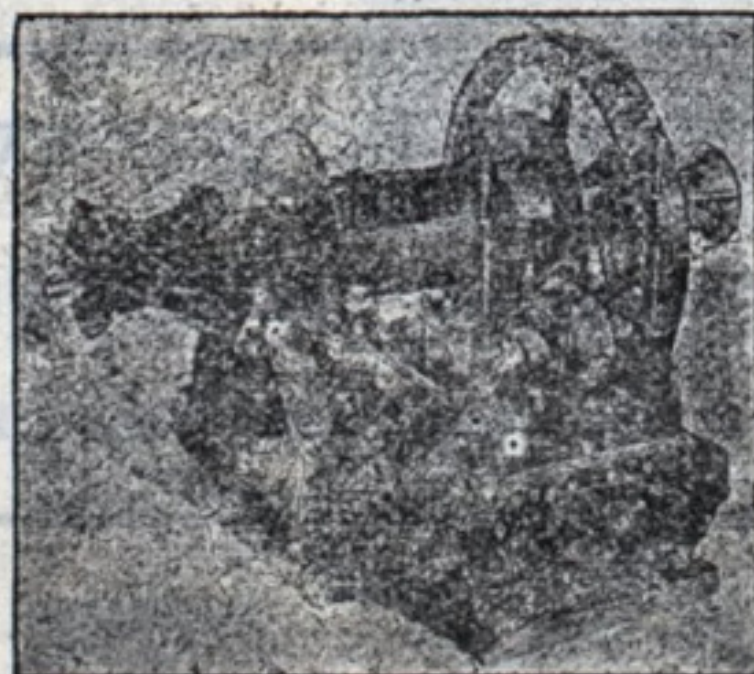
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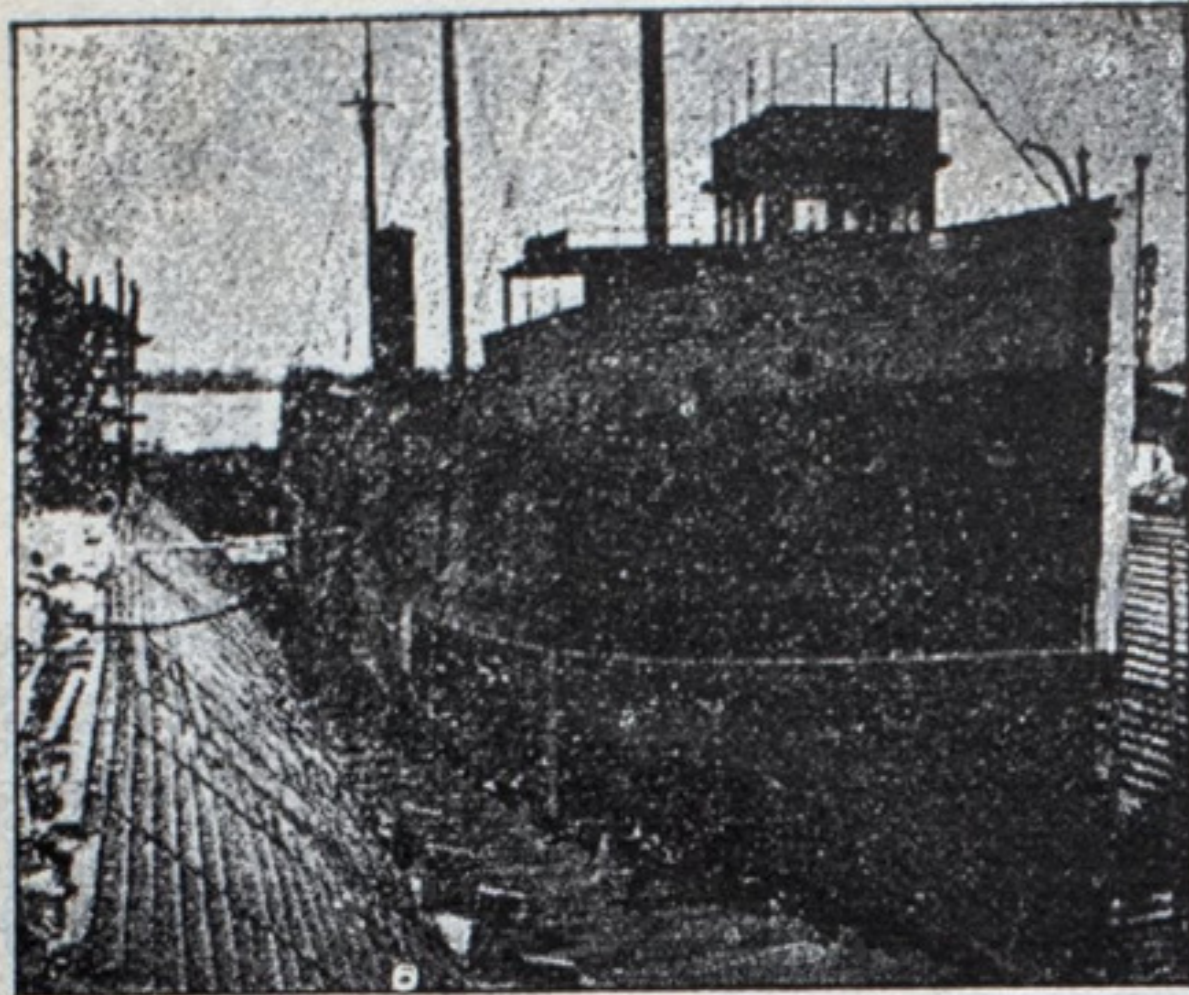
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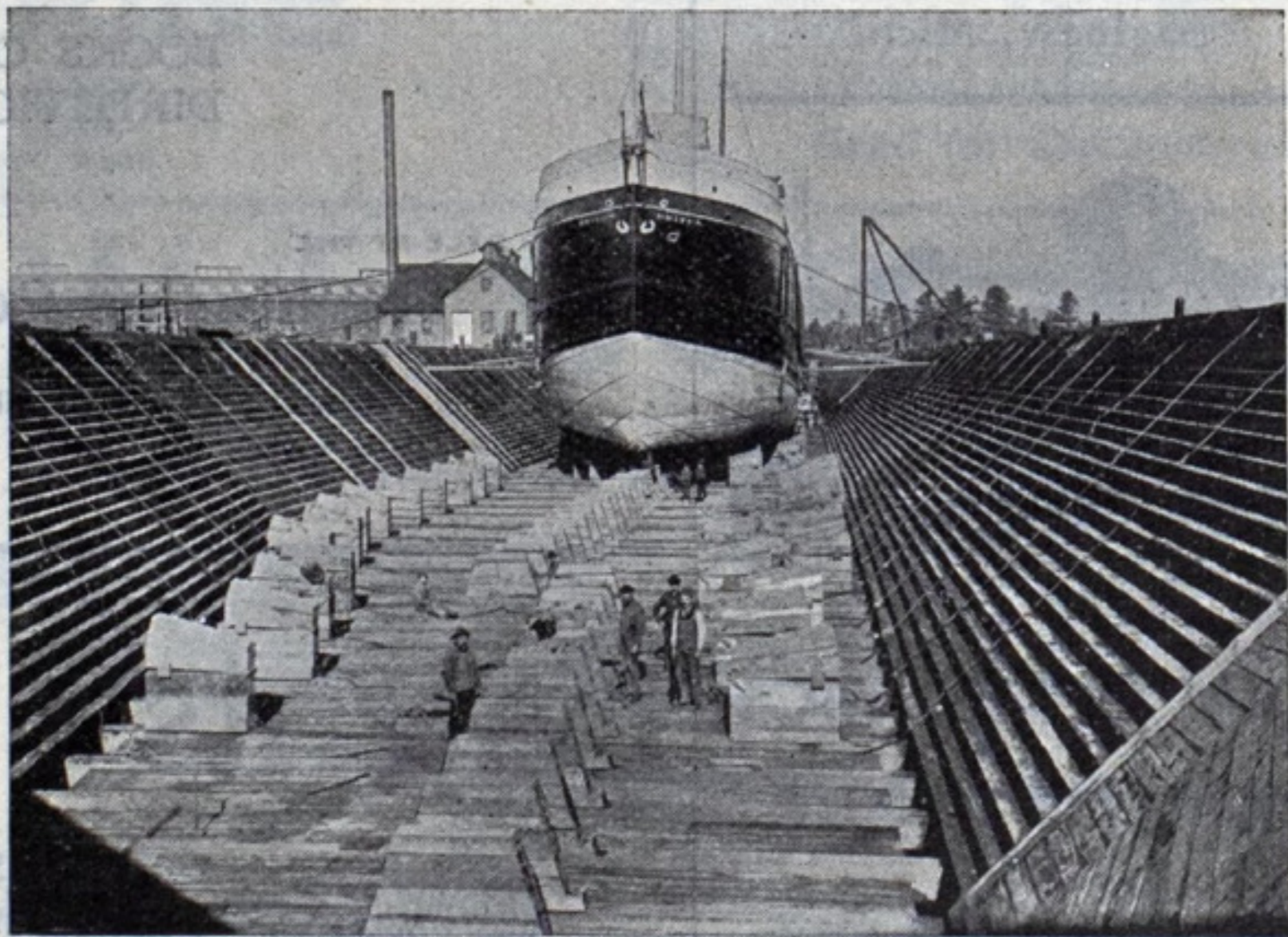
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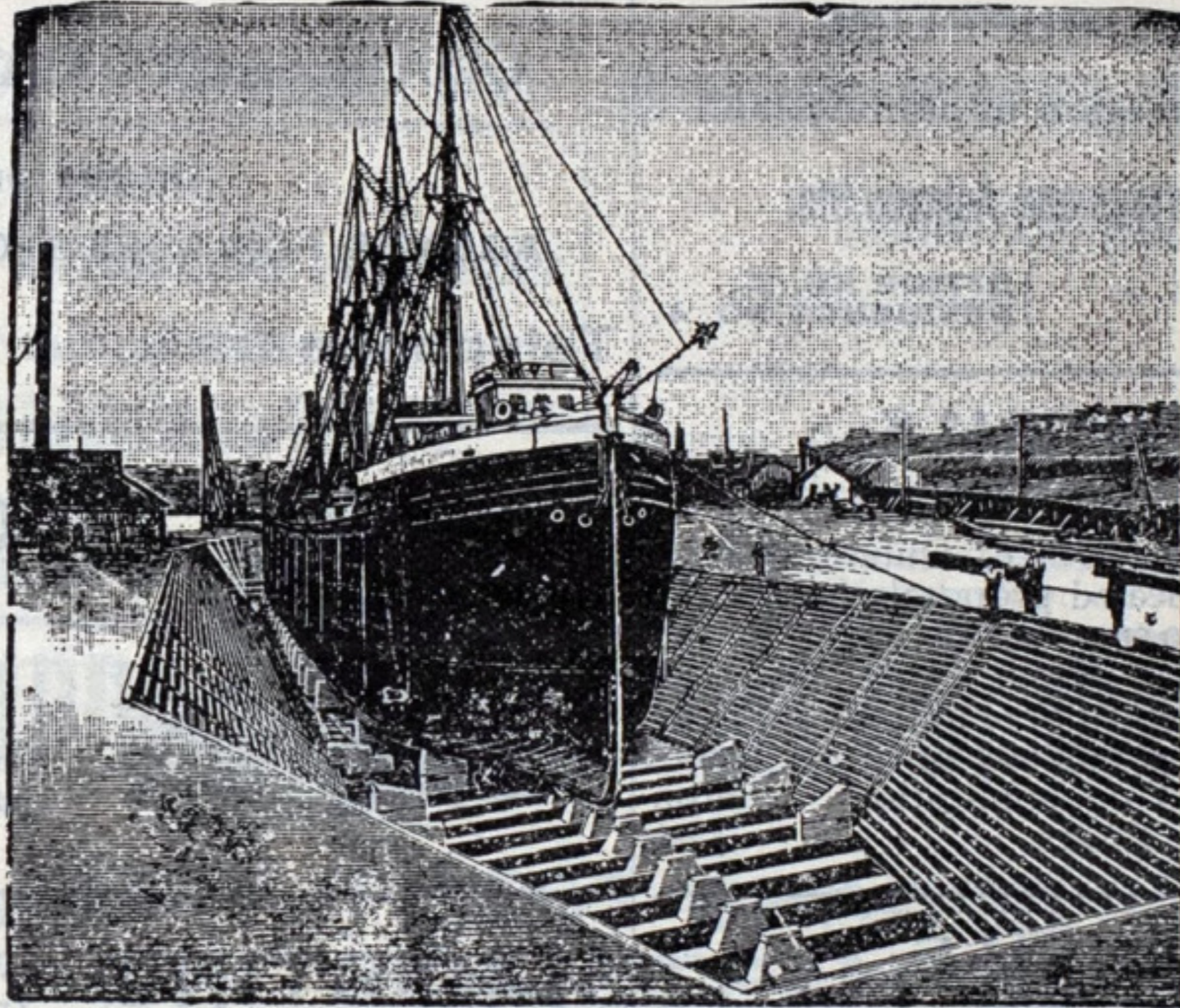
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